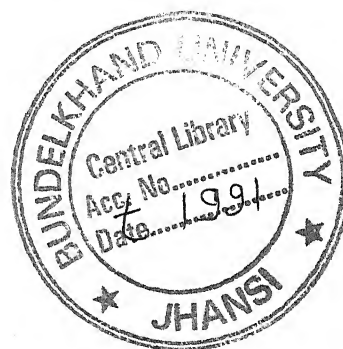


THE IMPACT OF MASS COMMUNICATION ON NUTRITION KNOWLEDGE, ATTITUDE AND PRACTICES OF SLUM AND NON-SLUM WOMEN DWELLERS OF KANPUR CITY



THESIS

Submitted to the
Faculty of Home Science,
Bundelkhand University, Jhansi

For
the degree of
DOCTOR OF PHILOSOPHY
in
Home Science

by
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ACKNOWLEDGEMENT

It extends me immense pleasure to have completed my Ph.D. thesis entitled “ **THE IMPACT OF MASS COMMUNICATION ON NUTRITION KNOWLEDGE, ATTITUDE & PRACTICE OF SLUM & NON-SLUM WOMEN DWELLERS OF KANPUR CITY**”, under the able guidance and supervision of **Dr. Reetam Singh** and Co-guide **Dr. Neelma Kunwar**.

I dedicate/ owe my work of Ph.D. to my loving and caring parents **Sri Bahrachi Ram & Smt. Shivbrat Devi**.

I take the opportunity to express my gratitude to Dr. Neelma Kunwar who took pains and spread her valuable time to supervise my work from time to time and encouraged me in accomplishing the original work worth a Ph.D.

I keenly wish to render my heartiest thanks to the faculty and staff whose precious suggestion kept enlightening me throughout the moments.

I do wish to extend thanks from the bottom of my heart to my family, my father-in-law **Sri Ram Samhar**, Advocate in particular who was my source of inspiration during the trivia of this work, loving acknowledgement to my beloved husband **Mr. Kamlesh Ranjan**, who was the motivational force working behind the curtain all throughout my Ph.D. and than there was the holy prayer of my son **Master Kaustubh Ranjan**, whose smile kept me on my toes and bring out the best I can.

I am extremely thankful to my parental family, my brothers **Sri Ram Shabd Singhal, Dr. Arun Kumar Singhal, Ram Kamal Singhal, Dr. Atul Kumar Singhal, Kunwar Ajeet Singhal** and sister **Asha** and niece **Sangeeta Singhal, Shalini, Sweta**, who originated the idea and kept my enthusiasm alive throughout the period conducting research & preparing my thesis.

Last, but certainly not the least, I extend my thanks to all my friends & relatives who have been a continuous source of imbued to in my mission.

Words are only medium to communicate and therefore, more often than not, they fail to convey the actual feelings. I beg pardon for being short of words to come out with my real inner felt feelings for all your support & encouragement.

Eventually, I also like to thanks all those whom I could not mentioned here, but who were involved directly or indirectly in fulfilling my mission to complete my research, thesis and Ph.D.


(Premlata Ranjan)

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Introduction

Chapter-I

INTRODUCTION

Men today learn almost everything they know through some medium of mass communication – Television, Radio, Newspapers, Magazines, Books and Films. The classroom, the pulpit and person-to-person contacts have lessened an importance as means of effecting either social stability or social change.

During last two or three decades there have been profound changes in communication technologies, systems of information dissemination and the patterns of knowledge diffusion and learning.

Transistor radio has bridged geographical barriers and overcome illiteracy gaps. Television pictures are now available to most of the fast expanding population in cities including the urban poor.

Our environment, for better or for worse, is mass media oriented. Mass media has become a significant source of information technology. It has occupied a wide range of specific fields like health, political science, education, recreation and general knowledge regarding nutrition, food values of available food stuffs, health value of medicines and soaps, cosmetics, antiseptics etc.

There is no area of general information, which is unknown for dissemination by the mass media.

The mass media as term is an agency to disseminate information for the purpose : Dictionary of Oxford “Defines Mass Media as a medium through which messages are transmitted from a central point to the client

for whom it is meant". It is a term well known to everybody in every field. Its significance can't be undermined in the field of education, in building up the public opinion, increasing mass awareness developing knowledge about the world around, as such its nature is differentiated by the purpose it has been used for. Its functions are well known in the form of print material such as newspapers, periodicals journals, books, magazines, pamphlets and all that presently exists as reading material. As electronic media it came into the form of radio and television. The appearance of television as a vehicle to help in the acceleration of social change has added a new dimension to the Indian social scenario. The arresting influence of this medium is being strongly felt by both rural and urban community members alike. It is clearly demonstrated that with the advent of television, cinema attendance and the reading of books and magazines have decreased among heavy television viewers (Belson, 1967).

In India, the Satellite Instructional Television Experiment carried out in 1975 demonstrated that the television is an appropriate medium for instructional education. This electronic media has been widely popular and acceptable to the masses around.

The most recent agency that is widely and gradually becoming functional is "internet" propagation of information's, it is not only recent but also the exact real and powerful agency. It has been a source of propagation information in the form of telecommunications, teleconferencing and also teleshoping etc. People exchange all kinds of information on the internet.

All the above agencies are intended primarily for entertaining people in leisure times. Presently, these media are being widely used as major non-formal sources of information, significantly and utilized by both urban and slum society people. But the more significant purpose is being served by the mass media like radio and television. It has been highly popular to disseminate information and knowledge, to educate the opinions of the masses and teach them about the health hazards in the field of healthcare, nutrition, food values, meal planning, proper preservation of food materials and diseases and its cure.

Malnutrition particularly under nutrition is known to be a major problem among the Indian population. The studies indicate that a large number of slum as well as urban population follow faulty food and nutrition related practices. According to UNESCO documents "A slum is a building a group of buildings, an area characterized as area of substandard housing condition within a city". All studies on slum have stressed the fact that slum is an area of darkness and area of poverty.

India's urban population would be around 23 per cent of the total population. "An urban settlement is the one which has a population of more than 5000, a density of not less than 1000 person per square mile, a minimum of three fourth of its working force as non agriculture".

There is a wide range of heterogeneity in cultural, religious, physical location, aspiration needs and resources are present. Educational and socio-economic status of urban population is more better than rural and slum population.

In our country generally the masses of women, the housewives shoulder the entire responsibility of the nutritional care of the family members as highly responsible caretaker. Thus, the role of women in the changing socio-cultural barriers for good nutrition is vital and unique. They alone are responsible for the methods adopted for the preparation and serving of meals to family members. Therefore, the nutritional status of family members are greatly influenced by the sound knowledge, attitude, beliefs and values possessed by the women.

The knowledge, attitude and practice (KAP) are therefore, regarded as the three basic component of any subject. KAP applies to every aspect of day to day life of an individual and the commonly including nutrition. There should be knowledge about the nutrition, which must change the attitude and then practice or apply this knowledge into action. But unfortunately in hurry the often gets concerned about immediate results. Woman values her norms more than the knowledge she receives through varied means and gets short lived or temporary success. For this, proper attitudes must be developed. Knowledge on the subject is needed to develop the attitudes.

In India, only about 39 per cent women are educated rest 61 per cent are uneducated who only care about the tasty and *Masaledar* (spicy) food and are neither aware or careful about the food values nor they know much about nutrients, food conservation and also its preservation, the caloric value of food and food habits. They are also ignorant that good food habits maintain health while faulty food habits cause disease. The whole family

lived in darkness about the knowledge of proper food and nutrition related practice.

In this regard mass media specially, the radio and television play an important role. These mass media are entrusted with the responsibility of educating these ignorant masses of rural, urban and slum society through its talks and of pictures in the form of advertisements, guidance and counseling programmes. These mass media are not very common in rural sectors but in cities majority of the population (70-80 %) can afford this availability, even this population is more interested in the entertainment value of these agencies but it is observed by some studies (Bhardwaj, 1981; Gupta, 1987) that especially, the housewives, the keepers of the house their exposure to mass media viz. television, radio etc. has not been an unusual concordance lady sit before television and gather scientific information regarding nutritive value of food articles, its caloric value and planning of menu for different age groups and condition.

In this way the mass media is not only popular in disseminating knowledge about the nutrients, nutritive value, food preservation etc. but also the media have been highly effective in developing favourable attitudes of women folk. It is playing a good role for the women's knowledge, attitude and proper practices, which are regarded as the three basic components of any subject.

The researcher was therefore highly conscious and entertained all the three dimensions that is knowledge, attitude and practices for the present study and the project was designed.

The impact of mass media communication on nutrition knowledge, attitude and practices of slum and non-slum women dwellers of Kanpur City.

The education system is important for the transmission not only of knowledge, skills and information but also of societal values relating inter alia, to gender equality. In many countries and regions girls still lag behind boys in terms of educational enrolment and achievement, and even where this gap may have been closed in quantitative terms, qualitative differences remain as a result of girls and boys being 'streamed' into different disciplines at secondary or tertiary levels. Normally girls are encouraged to pursue studies in so-called soft areas in arts subject rather than to take on subject considered more 'scientific' or 'technical' such as engineering. In this way the education system often acts as a vehicle for the transmission of traditional stereotype, which are then reflected in gender based occupation segregation of the economy.

It is important to highlight that improvements in the education system alone will be insufficient to eliminate the range of gender inequalities in a given country or enhance women's economic participation without accompanying changes in the 'enabling environment' 14 structural causes of inequality, some of the legally based and attitudes embedded in a institutions and society at large must also be tackled to several countries in the middle east. For example girls are represented in equal or more than equal numbers at some or all levels of the educational system, yet participate very little in the paid economy, largely because of stereotype, which militate against their working outside the home.

On the other hand, the benefits of enhanced education for girls and women go far beyond improving their economic potential. It has been well documented that improving access to education for women and girls has positive effects on the health and well being of their families later in life.

The nutrition education case studies from nine countries discussed in this paper were commissioned by FAO in order to provide an indication of trends in nutrition education, as the basis for discussion during the Expert Consultation on Nutrition Education for the Public, 18-12 September 1995. The case studies are representative of a number of different regions and approaches. Most are recent and have not been reported before. In summarizing these studies this author has adopted a standardized format to highlight key aspects of the studies and provide some basis for comparison, where this may be appropriate. The format adopted is to highlight the nutrition issues being addressed and the general context for the intervention in a background section, followed by objectives, target groups, sectors and/or settings involved strategies used, duration of the project, any results from evaluation and finally the conclusions of the case study authors themselves. Where case studies have not reported on all these aspects of their programme, this is indicated. No case study authors identified the funding resources available other than to indicate in some instances whether support was received from the United Nations or other agencies. It was, therefore, not possible to discuss the possible effect of resource constraints. Each country case study summary is followed by brief comments by this author. The discussion below provides this author's conclusions regarding the trends, which emerge overall, how these

compare with past reviews and what examples of best practice are provided by these studies to better inform similar projects in the future.

The case studies demonstrate the diverse socio-economic and cultural conditions from which nutrition problems arise, and in which public nutrition education interventions have to operate. While poverty underpins many of the problems being addressed, it is also clear, as in the case of Oman, that rapid social change, even when it increases the resources available to a household, brings changes to the food supply and to lifestyles that can produce serious nutritional consequences for a population. Most public nutrition education is aimed at enabling populations to make better use of available resources, or to know how to adapt to environmental changes. The case histories describe a wide range of information, education, and communication (IEC) strategies to achieve these aims, and many programmes include strategies designed to provide structural and environmental supports for nutritional improvement. That group of communication activities aimed at achieving a voluntary change in nutrition related behaviour to improve the nutritional status of the population.

A distinction is often made between the terms nutrition education, nutrition communication, nutrition promotion and information, education and communication (IEC)" (Graeff, Elder & Booth, 1994). There is a great deal of overlap in actual practice Education activities can include information processes which are generally designed to inform unilaterally, e.g. through print and broadcast (radio and TV) channels or the more traditional communication processes which use interpersonal, face-to-face

channels, e.g. group discussions, home visits, training and counseling. Each channel has its own strengths and weaknesses and it would seem that strategies, which combine multiple channels, have the most impact on changing behaviour. The question is no longer which channel is best but rather, how to use a combination of channels to teach and support nutrition behaviour.

While the focus of education activities is on changing individual behaviour, there has been a growing recognition that the health of individuals and their health-related behaviour is the product of that individual's continuous interaction with his or her environment. This includes the family, community, culture, social structure and physical environment.

There has been a move away from medical models of educating, to the use of a range of strategies and communication channels, and the use of approaches such as social marketing (Achterberg, 1991). There is a trend towards the increased use of locally available mass media, the adoption of more participatory approaches, and the inclusion of learners in all aspects of programmes (Gussow & Contento, 1984, Israel & Nestor-Tighe, 1984; Hornik, 1985; Zeitlin & Formacion, 1981; Cerqueira, 1990; Cerqueira & Olsen, 1995, Achterberg, 1995). There is a growing recognition of the need to include strategies designed to create supportive environments for behaviour change, and to sustain the effects of programmes through strategies designed to strengthen local ownership and to develop structural and institutional support.

The level of nutrition knowledge in Poland is low. Nutrition education activities are not co-coordinated and much overlap and fragmentation occurs. Nutrition education in schools is limited by a lack of qualified teachers, an insufficient focus on health and the lack of a discrete curriculum component. Mass media (Magazines) are frequently the source of false information about nutrition. Food advertising has had a negative influence.

Comprehensive surveys of consumers have indicated poor knowledge in the area of nutrients supplying energy; the energy value of food products and the food sources of key nutrients. There is better knowledge of the benefits of fibre and the harmful effects of an excess of fat and cholesterol in the diet, although not of the role of unsaturated fatty acids and salt. There are differences in knowledge levels according to age, sex, and level of education. Women, the well educated, and middle aged people have a higher knowledge level than men, the poorly educated or the very young or very old. Surveys also show a very low ability to read, interpret and recalculate data on food labels. Young people and the well educated have a better understanding.

Nutrition labeling can be one of the strategies used for educating the public. Although consumers declare an interest in nutrition information on food labels, interest is still relatively low which limits its educational effect. Young people show relatively less interest in nutrition information on food labels compared with the middle-aged.

Nutrition information in numerical and numerical-graphic form is preferred by consumers but to meet various needs, the video film method

of explaining the nutrition information on food labels is overall the most effective.

The capacity for nutrition communication has been strengthened. The projects enabled successful inter-sectoral and multi-sectoral approaches to be developed. The clear institutional framework has fostered good working relationships. However, lack of equipment and funds for communication (e.g. document copying and delivery) led to communication problems within the project. Traditionally, nutrition education methods have been didactic and based on a superficial analysis of the causes of mal-nutrition, and delivered by health workers poorly trained in communication. It is now recognized that strategy planning within a multi-sectoral, multi-media context is more effective. A range of communication methods is now used and the importance of community participation in all aspects of communication activities is recognized.

A feature of these cases is the expansion of the scope of nutrition education. It is generally agreed that interpersonal methods conducted in local communities are appropriate to address the common problems of maternal and infant malnutrition, and this has been, and no doubt will continue to be, a major focus for nutrition education programmes. However, these case histories demonstrate an increasing concern to provide environmental and structural supports for these efforts, as in the LAKASS and Tamil Nadu programmes. There is also evidence of using multi-channel approaches more often in these situations and a trend towards more participatory methods. However, there is also evidence in these case histories of the need to address a range of nutrition issues arising

from rapid social and technological change, which is occurring in many countries. The Polish, German, Oman, and Caribbean case histories are examples of these, addressing variously the availability of more packaged and processed foods, changing food habits and the changing information environment in Poland, Germany, and Oman, and addressing food safety issues in the Caribbean. There is a definite trend towards more inter-sectoral collaboration, as in the case of collaboration with the media and social organizations in the Caribbean, with education in Ecuador, and local government in the Philippines. The settings for nutrition education in these case histories include schools (Ecuador, Germany), point-of -sale retail (Poland), local clubs and organizations (Germany), although the local community and health services continues to be the most common settings.

The evaluation of programmes varies considerably, with the Ecuador project providing for a rigorous process and outcome evaluation, while in others evaluation has yet to be addressed, as with the German programme. In some instances of integrated programmes, the education component is under-resourced and under-evaluated making it difficult to determine its effects in relation to other components. The effectiveness of some programmes was seriously affected by lack of formative evaluation and pre-testing of materials as in the case of the Oman programme.

Training issues also are variably addressed, although in almost all case histories, some training is provided for. It would have been very valuable to have an evaluation of the training aspects included in the case histories. A need for training in the use of the mass media was frequently identified.

As mentioned, a major trend to emerge from the country case histories is that of using a combination of strategies and communication channels. Interpersonal methods emerge as an appropriate and effective way for reaching low literacy groups (especially where there is no broadcast media), for addressing complex skills and issues, or for discussing issues, which may be regarded as sensitive for the target groups. Interpersonal channels were used in the Niger project where there was low literacy and poor reception of local radio. They were the basis of the Ecuador project, which taught school children skills over time and engaged the community in problem solving. In the LAKASS project, informal discussion allowed mothers to discuss the extent to which new knowledge could be integrated with traditional beliefs. In Poland, video and talk methods were the most effective in explaining how to apply nutrition information from labels. Given the difficulties of positioning messages over the many available television channels and the high illiteracy rates of women in Oman, it may have been valuable to strengthen the interpersonal methods used in this programme.

A feature of most projects is the increasing importance given to developing strategies only after extensive analysis of the influences on behaviour. This leads to a better understanding of what is likely to be effective. An interesting dimension of the interpersonal communication reported is how innovative many methods were, for example, the use of games and role play through village animation groups in Niger, The use of folk media in the Tamil Nadu Project, the use of mobile units in Germany; and innovative local nutrition games in Ecuador.

The growing use of the mass media is also a trend, particularly as television becomes more accessible to greater number of people and as educators gain skills in its use. The Caribbean case study is particularly useful to identify a capacity building process in the use of mass media. Through collaboration with media practitioners, a most successful mass media campaign was developed and nutrition educators gained skills and confidence. An interesting feature of this process was the additional use of 32 final year media students, who were already attached to media agencies for training purposes. These students helped produce the messages of the campaign and developed a commitment to the project. Subsequently, as employer of media agencies they supported public service extension of campaign, free of cost.

In Niger, the capacity to use a range of media was strengthened by training in the use of rural radio, the development and use of audio-visual aids, and the use of video : Several studies highlight the critical importance of adequate . 'Market research' for mass media use, particularly in relation to audience segmentation. Careful selection of channels which reflect the patterns of use of the target audience, the importance of pre-testing messages, and the importance of monitoring.

The Polish studies on the use of Food labels, as a source of nutrition information is pertinent for any country where there is a high or increasing use of packaged and processed food. The complexity of successfully using such a strategy can begin to be understood if we consider which of the 50 or 80 nutrients should be included, and in what forms, on which of many hundreds, or in some countries, many thousands of foods. How does this

help consumers understand the relative nutritional merits of different packaged foods or the role of packaged foods in relation to unpackaged and unlabelled foods. It is becoming increasingly clear from the Polish and other studies that food label information has to be supported by education in how to use the label information.

Both the Pacific and the German case studies highlight the importance of using methods appropriate to the social and cultural context. The Pacific paper reports on the co-operative development of culturally relevant education and training materials for a vast region in which such development would be beyond the resources of individual countries. The Federal Republic of Germany addressed the urgent need to increase the credibility, the reliability, and the accessibility of IEC services at the local level. The strategies included extensive training of key community figures as change agents and positioning mobile units and advice centres locally.

Another major trend is the use of social mobilization and community participation methods. The Philippines LAKASS project involved the community in a five-step process covering all aspects of the programme from planning to evaluation. The Ecuador project used a community development approach in which the community identified its own problems and prioritized their needs. The Tamil Nadu project used women's and children's groups to mobilize the community. 'the use of children as change agents is an interesting feature of both the Tamil Nadu and the Ecuador projects. Generally, it would seem that programmes using strategies which foster community ownership and control of projects are much more likely to be sustainable. Nonetheless, depressed communities

must be extensively supported if their capacity to deal with malnutrition is to be strengthened. It would also have been valuable to have more detail on who in the community participates and in what ways.

The need for strong institutional and political commitment has previously been well documented and is again highlighted in these papers.

If we recall our memories during February and May 1999 there were two television programmes, each running for 3 hrs in late evening between 21.00 and 24.00, and one live morning radio broadcast, which was transmitted from 10.00 to 12.00. The programme used a phone-on format and were subsequently repeated twice at prime time between 20.00 and 23.00. The key messages about Iodine deficiency disorder, its control and the role of iodized salt were reinforced by the researchers 3 to 4 times during subsequent day time slots scheduled to run at various times in a day. These day time slots each lasted for 2-3 hrs face-to-face interviewing using a structured questionnaire of a sample of 672 married women above 19 years in February 1999 before the campaign and 768 women in May 1999 after the campaign. The sample obtained through a two stage random sample method – the first stage being the identification of provincial family centers and the second that of women from families registered at those centres. There were no controls.

Three different geographical areas were chosen : in one area mass media techniques including radio, posters and leaflets were used; in second area teachers used a direct method of nutrition education involving six two-hours sessions over three weeks of theory, alternating with demonstration. The educational sessions were deliberately kept with little

interactions, and the third served as a control group. No control group was in a position to receive the radio spots, but did not have leaflets or posters.

The impact of the programmes was compared on a sample of mothers of children less than 5 years in the control area ($n=976$), face-to-face education ($n=1083$) and mass media ($n=959$). A dietary survey was carried out with the three samples of mothers to determine the dietary intake habits and frequency of food intake. A questionnaire was administered in 20 minute interviews during the initial evaluation to detect the mother's knowledge of nutrition concepts. The same questionnaire was modified to change the question order and given immediately following the educational programme, three months later.

It was found that nutrition concepts were learned equally well using the direct method of education as with mass media. The face-to-face education group showed a 53 per cent increase ($P < 0.001$) in their learning scores. In this group, the mothers increased their knowledge of infant nutritional needs by more than 70 per cent with the mass media techniques. The increment in their final learning scores was 54 per cent ($P < 0.001$). The knowledge of the control group also increased in the self-reported intake of fish, vegetables, and fruits were observed in both the mass media and direct education groups ($P < 0.001$). The control group increased their consumption of popular but low nutritive value foods. It is suggested that the slight increase in knowledge of the control groups was due to their exposure to the radio spots.

Television programmes were broadcasted through satellites to rural villages. The programmes investigated in this study covered

“Supplementary Food For Babies”, “Cooking of rice” and “Importance of greens”. The first telecast was between 6.20 to 7 PM and a second telecast was at a later time in the evening from 8.30 – 9 PM. Only 29 of 220 women contacted viewed the first telecast and 7 of 289 viewed the second. Among those who did view comprehension of main points was poor. Low viewing figures for women was attributed to their high workload and cultural norms within the rural villages. This simple evaluation study highlighted some the problems faced when introducing a new communication technology to community without adequate initial research and pre-testing. The evaluation is very limited but it is of interest for historical reasons and for showing the problems that can occur when using new communication technologies in a community.

In this context, present study is carried out to assess the importance of mass communication on nutrition knowledge, attitude and practices of slum women with the following specific objectives :

1. To study the socio-economic profile of selected women.
2. To study the knowledge, attitude and practices regarding nutrition among selected women respondents.
3. To study the frequency of exposure of mass media on selected women respondents.
4. To compare the effect of sources of communication (mass media and other sources) on nutrition knowledge – attitude and practices of selected women respondents.
5. To suggest suitable measures for enhancing knowledge, attitude and policies.

PURPOSE AND JUSTIFICATION OF THE STUDY

The role of women in the changing socio-cultural barriers for good nutrition is vital and unique. They alone are responsible for the methods adopted for the preparation and serving of food. The better homes provide more nutritious food to their children and the low paid workers can hardly provide even the square meals so nutrition and nutritious food habits are highly subscribed the status of the family.

Malnutrition in lower status family is natural but even the high status families do not care for nutritious food for the children. Malnutrition, therefore, adhered to both high and low status families of urban and slum societies. The assumptions are that only the middle class educated families do only care for the nutrition for the children. In this case education of women is highly compatible.

It is only the women who can combat for nutritious food to be served to all the members of the family. Another assumption which researcher imbued in her study is that the awareness of the quality of food free from diseases has been awakened in even lower class families by mass media through auditory and visual programmes organized by the agencies like radio and television.

The women now combat single handed against malnutrition in her social cultural scenario. It is not that the costly materials of food are nutritious, even low cost ingredients of vegetables may serve better nutrients to both children and adults. The food habits generally depend on the status, the culture and availability of the food articles in the area. These things also play a major role in influencing the dietary habit of children

and adults. The researcher feels that it is not only the belief that counts for nutritious food habits needed for all but also the knowledge of the food and its food values that count in nutritional value of the meals so she feels that the study of both knowledge and attitudes can help the better practices of food habits.

The present study, therefore, aims at awakening the knowledge of the food values of the food contents as also the attitudes the women folk develop for providing more nutritious meals to members of the family and thereby develop healthier practices for nutritious food habits. For this purpose mass media is playing a vital role. Therefore, it is important to make studies on "The impact of mass media (radio and television) regarding nutrition knowledge, attitude and practices among urban and slum women."

Review of Literature

Chapter-II

REVIEW OF LITERATURE

Axelson and Delcampo (1979) studied the nutritional knowledge of adolescent ninth grade children of Florida U.S.A. through mass media. Those children within the range of nutrition education campaign by television, radio and brochures increased their test score more than those outside it. Children of African origin within range of nutrition education campaign increased their score than those of European origin in either group.

Hyland (1980) was of the opinion that use of radio by the dietitians in Landon and their guest speakers to advice and educate hospital patients on varying aspects of human nutrition, reached a much larger section of the local population than they could in their usual work.

Bhardwaj (1981) imparted knowledge to member of women of "Charcha Mandals" through printed material, tape recorded messages and group discussion and observed that exposure to mass media had positive and significant correlation with gain in knowledge. Negative and non-significant correlation was found between age and gain in knowledge.

Mittal *et al.* (1982) found in their findings that the majority (89.5 %) of rural mothers irrespective of their level of knowledge consulted their mother in law and doctors regarding child feeding about 62.5 per cent of the mothers consulted their husbands too. Neighbours were rated as an influential source more often than relatives. The other source of

information like books and radio were not a significant source of acquiring knowledge regarding child feeding.

Mittal *et al.* (1982) conducted a study to determine the level of knowledge and educational needs of rural mothers in relation to forming desirable food habits in per school children in Himachal Pradesh.

The findings shows that the majority of the rural mothers have a moderate level of knowledge, yet do not seem to be aware of the importance of hygiene and therefore do not practice the same. Further, it was found that literate mothers had obtained higher knowledge scores than the illiterate mothers and also the older mothers had a high level of knowledge than the younger mothers. The mothers of the low income group were found to have higher scores than the mothers of the comparatively higher income group. This shows that a mother who is financially poor but who possessed some knowledge of the basic principles of nutrition makes better use of the available limited food resources.

Chicci and Guthris (1982) developed a series of five short messages about complex carbohydrates in the diet and broadcasted it on radio during a 37 day campaign a nutritional knowledge test was given before during after the campaign to 1067 persons. Scores increased among the university town residents and university students but not among persons from near by rural community. Persons who were more likely to score higher on the knowledge test were better educated, younger, more interested in nutrition and remembered the nutrition messages.

Ramdasmurthy *et al.* (1983) conducted a study on the "Nutrition profile and scope for nutrition education of industrial workers." The

objectives of this study were to (a) assess the nutritional status of low paid industrial workers (b) identify area of diet, health and nutrition. Nutritional status of the workers was assessed and their knowledge and practices regarding certain health and nutritional aspects were studied. Similar data on knowledge and practices were also collected from housewives. The results indicates no statistical difference between the age groups in respect of scores for knowledge and practices. The knowledge and positive attitude were found to be the basic pre-requisite for implementation in practices. Present scores of both workers and wives for knowledge were very high in respect of health and dietary concepts but those for practice were uniformly low.

Khanna (1983) suggested that with the help of suitable audio-visual aids mothers should be given advice on weaning, on the frequency of feeding young children on the amount and type of food to be given. The author recommended multi-media approach including film, folk drama, or combination of media for dissemination of information.

Musainger (1983) interviewed housewives in Bahrain, twice in their homes, before and after exposure to some food advisements. The survey after their exposure to the food advisements. Three new food advertisements were used during the study period.

A study done by **Lubbe (1984)** in South Africa revealed that, the urban and rural Zulus and Souther Sathes. Seriously lacked the knowledge of some aspects of nutrition particularly about a balanced diet and infant and child nutrition.

Turner (1984) said that mass media are made up of a member of enterprises with common and individual characteristics they include national and regional newspapers, television, radio and the special interest magazines dealing for example with health, food cookery and science.

Travis *et al.* (1984) stated that use of audio-cassettes to reinforce personal instruction, were successful in attracting home makers in New York, U.S.A. to attend a programme in group setting and promoting the participants awareness of good food and nutrition.

Newell *et al.* (1985) and **Gillespie and Achterberg (1989)** measured nutrition knowledge gain, attitudes and practices of mothers concerning food shaping, 24 hr food intakes and changes in child nutrition after giving nutrition education. The results of all the studies showed a significantly positive outcome and none were negative but the education programmes had a greater impact on k/g and attitudes than on practices.

Weiss and Davis (1985) studied the response of on elderly a audience to nutrition education articles in a newspaper for seniors. In the study it was observed that nutrition articles attracted many readers (68.4 % read at least one of the five monthly articles) of those that reported reading articles, 25.7 % also reported changing their eating or food buying habits as a result of the articles, the three most frequently used sources of nutrition information were physicians, newspaper and books/magazines and a majority (75 %) of the sample felt food choices were limited by income.

Nair and Swaminathan (1985) have observed that in recent years defective storage method and indiscriminate use of chemical preservatives

by rural women. Women of five village of Coimbatore district of Tamil Nadu have led to various liver disorders in the consumers.

Chandra and Shukla (1985) found that less than 25 per cent of the women of servant's quarter in M.S. University of Baroda were following correct practices regarding health and diet of small children. However, a larger percentage followed the correct practices of food preservation.

Gupta (1986) stated that though all women in a village of Nainital district U.P. (in whose houses there are radio sets) listen to radio the total time spent with radio in a day is rather less. Majority of women listen to radio six to seven days in a week. Most of the women (72 %) do not view television apparently due to non-availability of television sets. Very few respondents read newspaper and magazines themselves or some read it for them in the house.

Chauhan (1987) conducted a study to find out the impact of four selected health and nutrition messages, which were broadcasted from AIR Rampur, U.P. The messages were on communicable diseases and their prevention vegetarian foods and nutrients. Diarrhoea and its treatment, and vitamin A and its importance positive results were observed in a study. The effectiveness of the messages was evaluated in terms of immediate post exposure. Knowledge and retention of the after 30 days of broadcast. In comparison with pre-test scores there was an increase of 12-41 per cent for the immediate post exposure test. The retention test (30 days) scores declined from post test scores to the extent of a mean 15.3 per cent which reveals that knowledge once acquired is not permanent and needs to be reinforced through frequent exposure. Education and prior mass media

exposure were found to be positively correlated with gain and retention of knowledge of the respondents.

Gupta (1987) discovered that all the housewives interviews (100 %) were using radio as a source of information than 88.33 per cent housewives received informations from their neighbours in a village in Nainital district U.P. They were using radio as a source of information. Next important sources were television and magazine. About one third of the respondents reported newspaper and extension workers as their sources of information. Ninety per cent of the respondent listened to radio for one hour or more than one hour. Whereas only ten per cent of the respondents listened to radio for less than one hour.

Ivanovic *et al.* (1987) studied "The knowledge of food and nutrition of students graduation from basic education in the metropolitan area". In this context the knowledge of food and nutrition was tested among 249 students 12-20 years old from Santiago who had completed the basic education course. The test was divided into section 1 concerned with food and requirement.

Section 2 personal and environmental hygiene of the students. It was found that 31.3 per cent had sufficient knowledge of section 1 and 65.9 per cent of section 2 when the student were grouped according to high medium and low socio-economic levels. 62.1 per cent from the high, 12.3 per cent from low group had sufficient over all knowledge. For all groups 46.3 per cent of girls and 33.3 per cent of boys had sufficient knowledge.

Kumar *et al.* (1989) studied the nutrition knowledge, attitudes and practices of 160 mothers in Hissar city using the pre-tested questionnaire.

It was found that half of the respondents (48.7 %) were adequately informed and 26.2 per cent were inadequately informed 90 per cent of the mothers respondents correctly but indicated a low degree of certainty 65 per cent of the mothers had favourable attitude towards nutrition practices and 26 per cent were under the poor category. Mean scores indicated that the larger proportion of the respondent had adequate nutrition information, favourable attitudes and good practice. A positive and significant correlation was seen between the nutrition and attitude and knowledge and practice but non-significant correlation was found between attitudes and practices.

I. Leonhauser and I Ruck (1990), the former Democratic Republic (GDR) had a complex and cumbersome infrastructure for nutrition research and nutrition education. The stagnation of life expectancy and the prevalence of the diseases of malnutrition were attributed to the social and economic environment and lifestyle factors. People tended to resist the information made available, (Partly because of food shortages) and held to traditional consumption patterns that were not always consistent with good nutrition. The challenge for the new system was to find a way to develop nutrition education intervention measures which would become part of the social structures influencing nutrition behaviour and which would reach large numbers of people. There was a need to provide information about the new products now available and to combat media misinformation.

A. Mamadoulaibou. Many surveys have identified major nutrition problems in the population. Protein energy – malnutrition vitamin A and iron deficiency are widespread, with pregnant and nursing mothers and

children under five being the most vulnerable groups. The government has been focusing on increasing food production and the development of a new health service infrastructure, including community based mother and child-care services.

The prevalence of vitamin A deficiency in the Sahel region is partly due to the lack of availability of foods rich in vitamin A, particularly in the lean season, but partly due to lack of knowledge. This paper reports on a social communication and nutrition education project directed at reducing vitamin A deficiency and a communications-training project.

The capacity for nutrition communication has been strengthened. The projects enabled successful intersectoral and multi-sectoral approaches to be developed. The clear institutional framework has fostered good working relationship. However, lack of equipment and funds for communication (e.g. document copying and delivery) led to communication problems within the project.

Traditionally, nutrition education methods have been didactic and based on a superficial analysis of the causes of malnutrition, and delivered by health workers poorly trained in communication. It is now recognized their strategy planning within a multi-sectoral, multi-media context is more effective. A range of communications methods are now used and the importance of community participation in all aspects of communication activities is recognized.

Mitchell and Leaner (1991) studied the "Nutrition knowledge, attitudes and practices of pregnant middle class women". The purpose of this study were to determine nutrition knowledge, attitudes and changes in

prenatal nutritional practices and to identify the sources of information used by pregnant women. The results indicate that the middle class women in this study had basic knowledge about and a positive attitude towards nutrition during pregnancy. They made changes to improve the quality of their diets, but not all intakes met dietary recommendations. Pregnant women was multiple sources of nutrition information the results suggests that health professionals in obstetric practice, particularly physicians are important targets of nutrition education programmes and materials.

Turner (1992) in his article "The influence of popular magazines on community nutrition" stated that people are becoming more aware of the nutritional content of food and its importance and in their concern. Consciously or in consciously depend up on the recommendations of friends, magazines, articles advertisements etc. without any actual awareness. To find out the extent to which people are influenced a short questionnaire was designed. A total number of 312 useful questionnaire was collected 80 per cent were from females and 20 per cent were male. The result showed that the public is interested in what it eats, is anxious to learn more about nutrition. Popular magazines are a source of nutritional education and apparently affect the diet of 50 per cent of the community to some degree.

Taylor *et al.* (1993) conducted a study on "Dietary practices and nutrition beliefs through the adult life cycle." In their study they showed that the accuracy of an individuals knowledge of nutrition is influenced by the source of nutrition information utilized. A telephone survey on 1560 respondents was conducted. Survey results revealed that the respondents

appeared knowledge of nutrition principles as reflected in their beliefs but sound nutrition practices were not consistently demonstrated by the different age group. Older groups adhered to traditional meal pattern and were less likely to utilize the stopping and planning practices known to enhance the nutritional quality and food budgets. They were found to be less secure with their nutrition information. This tendency would have been because older adults may not have had the same opportunity to learn recent information as have the younger age group.

Aferova *et al.* (1993) studied the "Residual knowledge of primary school teachers in urban and rural areas about food and nutrition." For the purpose residual knowledge on food and nutrition was studied in 63 elementary school teacher in the city and province of Havana, Cuba in relation to what they had been taught during their training. A 4 scale value was used according to the number of correct answers to a set of multiple choice and open questions excellent 90-100, good 75-89, fair 60-74, and poor less than 60 % correct only 25 per cent of urban teachers and 29.6 per cent and rural teachers answered 60 per cent or more of their question correctly.

Sachdeva Rajbir (1993) conducted a study on "Knowledge and practices of Punjabi rural mothers regarding the feeding of per school children." Nutrition education was imparted to fifty mothers of the experimental group (NEG) for three months to modify and improve the diets of their children. The results indicated that the gain in knowledge and practices of mothers were higher in the NEG as compared to control group

(CG). It was further observed that the quantum of improvement on the knowledge and practices was 2.85 and 1.43 times respectively in the NEG.

Ivanovic (1993) studied the various "Sources of nutrition information of scholars" of the 4509 elementary and high school children, 87.8 per cent indicated that their family mainly the mothers was the most important source of nutrition information. 10.7 per cent indicated their school teacher and 1.5 per cent mass media (television 0.8 %, books 0.5 %, magazine 0.1 % and radio 0.1 %) without significant difference between, sex age and geographic region. The role attributed to the family was important in all socio-economic group but was significantly higher in the high socio-economic than in the low S.E. group. The role attributed to the teacher was lower in the high socio-economic than in the low S.E. group. The influence attributed to books and magazines was higher in high S.E. group and that attributed to television and radio was higher in the low S.E. group.

Musaiger (1993) conducted a study on Socio-cultural and economic factors affecting food consumption patterns in the Arab countries. He found that socio-cultural factors such as religion beliefs, food preferences education and women's employments all have a noticeable influence on food consumption patterns. Mass media, specially televised food advertisement, play an important role in modifying the dietary habits.

Nutrition education has been defined by **Andrien (1994)** as "that group of communication activities aimed at achieving a voluntary change in nutrition related behaviour to improve the nutritional status of the population" (**Graeff, Elder and Booth 1994**) nutrition education, nutrition

communication, nutrition promotion and information, education and communication (ICE). Education activities can include information processes which are generally designed to inform unilaterally, e.g. through print and broadcast (radio and TV) channels or the more traditional communication processes which use interpersonal, face-to-face channels, e.g. group discussions, home visits, training and counseling. Each channel has its own strengths and weaknesses and it would seem that strategies which combine multiple channels have that most impact on changing behaviour. The question is no longer which channel is best but rather, how to use a combination of channels to teach and support nutrition behaviours.

W. Roszkowski and A. Kollajitis Dolowy, the level of nutrition knowledge in Poland is low. Nutrition education activities are not co-ordinated and much overlap and fragmentation occurs. Nutrition education in schools is limited by a lack of qualified teachers, an insufficient focus on health and the lack of a discrete curriculum component. Mass media (magazines) are frequently the source of false information about nutrition. Food advertising has had a negative influence.

Comprehensive surveys of consumers have indicated poor knowledge in the area of nutrients supplying energy. The energy value of food products and the food sources of key nutrient. There is better knowledge of the benefits of fibre and the harmful effects of an excess of fat and cholesterol in the diet although not of the role of unsaturated fatty acids and salt. There are differences in knowledge levels according to age, sex and level of education. Women the well educated, and middle aged people have a higher knowledge level than man, the poorly educated or the

very young or very old surveys also show a very low ability to read, interpret and recalculate data on food labels. Young people and the well educated have a better understanding.

Nutrition labeling can be one of the strategies used for educating the public. Although consumers declare an interest in nutrition information on food labels, interest is still relatively low which limits its educational effect. Young people show relatively less interest in nutrition information on food labels compared with the middle aged.

Nutrition information in numerical and numerical graphic form is preferred by consumers, but to meet various needs, the video film method of explaining the nutrition information on food labels is overall the most effective .

The author also recommends that nutrition education in schools in Poland should be updated to make it more effective, that better co-ordination of nutrition education efforts is needed, and that more use should be made of the mass media.

Hess *et al.* (1994) studied the "Consumer attitudes towards alternative diets". A study was conducted to examine the familiarity of alternative diets among private households in Germany and to find out how much practical experience with these diets is available in private households. Information about the effects which the adherence to alternative diets has on selection, purchase and consumption behaviour and compliance with dietary recommendations has collected differences which exist in the socio-demographic characteristics, nutrition education and

attitudes of people having different degree of knowledge and practical experience with alternative diets are presented.

Anderson and Shepherd *et al.* (1995) studied on "The influence of dietary advice on nutrient intake during pregnancy". To assess the effect of an antenatal nutrition programme designed specifically for the local population questionnaires on nutrition knowledge, attitudes to healthier eating and 4d diet diaries were completed by women attending routine antenatal clinics. Women who received the nutrition education programme were allocated into an intervention education group. Whilst those women did not allocated into a routine education group. The results showed that knowledge about nutrition was significantly higher in the intervention group. However, no significant differences were detected between the two groups for attitude variables or nutrient intake. It was concluded that the most widely read form of nutrition advice for pregnant women may have some impact on nutrition knowledge but has little effect on nutrient intake during pregnancy.

Mc Nutt (1996) studied about what consumers are learning from magazine about food and health. The consumers learn about nutrition from variety of sources much of the information contained in these sources e.g. magazine is not professionally controlled. Information contained in magazines about how food affects health is discussed. How magazine differ from professional journal is examined. Intended audience, coverage and style are described of selected consumer magazine under the following heads main stream, health, healthy eating fitness etc.

Yang *et al.* (1996) conducted a study on Effects of different modes for health education on mother's knowledge of baby feeding. Results revealed that the best source of mother's nutrition knowledge was derived from a comprehensive mode of health education. The others from mass media and medical professionals and the last one from mother's relatives and friends.

Hussain Akhtar (1997) conducted a study on Impact of a health education programme to promote consumption of vitamin A rich foods in Bangla Desh. The different media and communication channels both traditional and modern, were employed to communicate the message of locally available vitamin A rich foods and its importance for sight. The results revealed that consumption of dark green leafy vegetables was higher among the households that were exposed to interpersonal or group communication, consumption of protein items was more common among those who were informed through the mass media.

V. Pushpa and K. Sheela (1997) conducted a study on Impact of nutrition and health information through mass media in Bangalore. Study conducted on 240 mothers of rural and slum areas. The result of the study revealed that the among the media accessible to rural only 59 per cent of rural respondents were reached by television while in urban it was 81 per cent correlation between knowledge and adoption of nutrition and health information of rural and urban women of different level of media found significant at 0.01 level.

Devi and Sarada (1997) found the result of the participatory development planning can bring about satisfactory result in nutrition

educational intervention programmes by involving women at all the stage of the programme and thereby developing their commitment to better nutrition and health.

Palgi & Sheridan (1997) and **Crequiere *et al.* (1979)** found that slide show, radio posters and pamphlets were effective in bringing positive change in the food consumption of infants and mothers. The mothers were found to have increased knowledge gain about infant nutrition at needs by more than 70 per cent.

Reifsnider and Eckhart (1997) conducted a study on "Prenatal breast feeding education and its effect on breast feeding practices in WIC participants". The objective of this study was to see if breast feeding education increases the breast feeding incidence in women. The sample of study consisted of two groups. The control (17) and experimental (14) the experimental group was given education (at least one class) in breast feeding practices and its uses.

Findings the experimental found a significant difference in breast feeding by parity ($P < 0.05$). The more of education increase the number of incidence of breast feeding towards higher proportion.

Zhao and Xie *et al.* (1997) conducted a study on nutritional knowledge, attitude and practice among the residents in Beijing, Guangzhou and Shanghai. The results showed that subjects knowledge level was not high, and their knowledge scores were significantly correlated with their education levels. Subjects aged above 35 had a higher knowledge level than that of younger ones all the subjects had positive and favourable attitude towards the acquisition of nutritional knowledge,

responsible dietary pattern and healthy diet habits. Results of food frequency survey indicated that the consumption of rice/flour, meal/poultry, vegetables, fruits, milk and milk products was relatively high. In addition, 89.5, 78.8 and 47.8 per cent of subjects selected newspaper, T.V. and broadcast as their main sources of nutritional information respectively.

Mukta and Kumar Annamma R. (1998) conducted a study on the impact of nutrition education imparted through a combination of media to rural mothers in Pantnagar labour Colonies, employing a set of multiple choice questions and different scale. Message on child nutrition were emphasized knowledge gain at post exposure stage was significant, however knowledge retention by the 45th day declined by 17.7 per cent significant positive correlation existed between knowledge and attitude. Education level of mothers positively influenced their attitudes towards correct nutrition practices.

Bhatia *et al.* (1999) conducted a study on diarrhoea, its prevalence, practices and awareness of mothers in 120 randomly selected households in the rural area of Chandigarh during monsoons in 1996. In spite of access to safe drinking water and latrines in 83 and 74 per cent of the households in the village respectively. The prevalence rate of diarrhoea in 181 under five children was observed to be 23.2 per cent majority (88.1 %) of children had treatment for diarrhoea whereas only half (54.8 %) of children were given oral rehydration solution 86.77 of the mothers were aware of ORS but only 18.7 per cent could tell the correct method of its preparation.

A large number of respondents implicated a variety of food items responsible for diarrhoea and restricted item during episodes.

Can *et al.* (2004) says during the period between February and May 1999 there were 2 TV programmes each running for 3 hrs in the late evening between 21.00 and 2400 and one live morning radio broadcast, which was transmitted from 10.00 to 12.00. The programmes used a phone in format and were subsequently repeated twice at prime time between 20.00 and 23.00. The key messages about Iodine deficiency disorder, its control and the role of iodized salt were reinforced by the researchers 3 and 4 times during subsequent day-time slots scheduled to run at various times of day. These day-time slots each lasted 2-3 hrs.

Ramadasmurthy *et al.* (2004) says television programmes were broadcasted through satellites to rural villages. The programmes investigated in this study covered “supplementary food for bodies”, “cooking of rice” and “importance of greens”. The first telecast was between 6.20 and 7 pm and a second telecast was at a later time in the evening from 8.30 – 9 pm.

Cerqneriea (2005) says three different geographical areas were chosen : in one area mass media techniques including radio, posters and leaflets were used, in a second area teachers used a direct method of nutrition education involving six two hours sessions over three weeks of theory alternating with demonstrations sessions. The educational sessions were deliberately kept didactic with little interaction; and the third served as a control group. Note the control groups were in a position to receive the

radio spots (but did not have leaflets or posts). It is not clear whether the face-to-face education group were in a position to receive radio broadcast.

The impact of the programme was compared on a sample of mothers of children under 5 years in the control area ($n = 976$), face to face education ($n = 1083$) and mass media ($n = 959$). A dietary survey was carried out with the three samples of mothers to determine the dietary intake habits and frequency of food intake. A questionnaire was administered in 20 minute interviews during the initial evaluation to detect the mother's knowledge of nutrition concepts. The same questionnaire was modified to change the question order and given immediately following the educational programme, 3 months and 12 months later.

Barbara Smith (2005) says, the case studies demonstrate the diverse socio-economic and cultural conditions from which nutrition problems arise and in which public nutrition education have to operate while poverty underpins many of the problems being addressed, it is also clear, as in the case of omen, that rapid social change, even when it increases the resources available to a household, bring changes to the food supply and to lifestyles that can produce serious nutritional consequences for a population. Most public nutrition education is aimed at enabling populations to make better use of available resources, or to know how to adapt to environmental changes.

The case histories describe a wide range to information, household, and communication (IEC) strategies to achieve these aims, and many programmes include strategies designed to provide structural and environmental supports for nutritional improvement.

Profile of the Study area

Chapter-III

PROFILE OF THE STUDY AREA

Prior to discuss the findings of the study, it is essential to sketch briefly the salient features of the study area. The following are the brief features of district Kanpur.

District Kanpur

Kanpur is said to be the correction of Kanhaiyapur or Kanhpur, which was an unimportant village till its first contact with the British. According to a local tradition, the name of Kanhpur Kohna owes its origin to Hindu Singh, Raja of Sachendi, who came here about 1750, to bath in the holy river, the Ganga and established a village, which he (possibly) named Kanhpur, the name changed to Kanpur in due course of time. Britishers used to write it as Cawnpore.

Kanpur Nagar is divided into six zones, having 110 wards divided into 390 slums.

Location

The district Kanpur occupies the north-western part of the Allahabad division and belongs to the tract known as the lower doab (which comprises the eastern extremity of the strip of country lying between the Ganga and Yamuna rivers). In shape, it is an irregular quadrilateral and lies between the parallels 25°26' and 26°58' north latitude and 79°31' and 80°34' east longitude. To the north-east, beyond the Ganga, the deep stream of which forms the boundary of the district, lie the districts of

Hardoi and Unnao, while to the south, across the Yamuna, are the districts of Hamirpur and Jalaun. On the south-east, the boundary marches with that of Bindki (a tahsil of Fatehpur) and to the west and north-west are the Auraiya and Bidhuna tahsils of district Etawah) and that the Kannauj of district Farrukhabad.

Area

According to the Central Statistical Organization, the district had an area of 3015 sq.km. (Census, 1991).

Population

According to the census of 1991, the district had a population of 32,53,572 in which males are 17,76,197 and females are 14,77,375. The rural areas were inhabited by 11,68,866 persons, 5,36,259 being females and 6,32,607 being males and the urban areas by 20,84,706 persons in which 9,41,116 being females and 11,43,590 being males.

Sub-divisions Tahsils

The district has been divided into three tahsils, Kanpur Sadar, Bilhaur and Ghatampur and further divided into ten blocks – Ghatampur, Vidhnu, Sarsaul, Bilhaur, Shivrajpur, Chaubeypur, Kakvan, Ghatampur, Patara and Vaikunthpur.

Tahsil Kanpur Sadar is the northern most tahsil of the district. Kanpur Sadar tahsil comprises with three blocks – Kalyanpur, Vidhnu and Sarsaul. According to the census 1991, it had 158 villages and covered an area of 792.2 sq.km. with a population of 3,81,154 (females 1,73,775).

The Bilhaur tahsil lies in west. Tahsil comprises of four blocks – Bilhaur, Shivrajpur, Chaubeypur and Kakvan. According the census 1991, it has 203 villages and covered an area of 867.1 sq.km. with a population of 3,66,092 (females 1,68,051).

The Ghatampur tahsil lies in south. Tahsil comprises of three blocks – Patara, Bheetargaon and Ghatampur. According the census 1991, it had 196 villages and covered an area of 1083.7 sq.km. with a population of 4,21,620 (females 1,94,433).

River system and water resources

The two chief rivers of the district are the Ganga and Yamuna. The Isan and the Non are the tributaries of the Ganga and the Rind and Sengar are the chief tributaries of the Yamuna. The main water resources are rivers Ganga, Yamuna and lakes.

Climate

The climate of the district is characterized by a hot summer and general dryness except in the south-west monsoon season. The year may be divided into four seasons. The period from March to about the middle of June is the summer season, which is followed by the south-west monsoon season which lasts till about the end of September, October and the first half of November form the post-monsoon or transition period. The cold season spreads from about the middle of November to February.

Rainfall

Records of rainfall in the district are available for 8 stations for periods ranging from 51 to 97 years. The average annual rainfall in the

district is 778.9 mm (30.67") The rainfall in the district varies from 642.3 mm (25.29") at Narwal to 884.8 mm (34.83") at Kanpur. About 89 per cent of the annual rainfall is received during the monsoon months (June to September) August being the rainiest month.

Temperature

About the beginning of March there is a rapid rise in temperature. May and the early part of June constitute the hottest part of the year. The mean daily maximum temperature in May is 41.3°C (106.3°F) or above. Hot, dry and dust laden westerly winds are common in the hot season.

January is generally the coldest month with the mean daily maximum temperature at 22.3°C (72.1°F) and the mean daily minimum at 7.8°C (16.0°F). During the cold season, in association with passing western disturbances, cold waves affect the district and the minimum temperature drops down to about the freezing point of water and frosts occur.

Humidity

During the monsoon season, the humidity generally exceeds 70 per cent but after that it decreases. The driest part of the year is the summer season when in the afternoon the humidity is less than 30 per cent.

Cloudiness

During the monsoon season and for brief spells of a day or two during the cold season when the district is affected by passing western disturbances, heavily clouded or overcast skies prevail. In the rest of the year skies are mostly clear or lightly clouded.

Winds

Winds are generally light with some strengthening in force during the summer and early monsoon seasons. In the non-monsoon months, winds blow mostly from direction between south-west and north-west with northerlies and north-westerlies predominating in the afternoon from May, winds from direction between north-east and south-east begin to blow and in the south-west monsoon season they are either from directions between south-east and north-east or between south-west and north-west.

Selected sample of Kanpur City

Kanpur is well acquainted with the city and the other reason is that being hub of industries and trades, the city has many slum areas with in and in the periphery of the city. For selection of areas, cluster sampling would be used. The city would be divided into two clusters, one cluster would consist of number of slum areas and the other would consist non slum areas. For each cluster, list of areas would be prepared and then from each list two areas would be randomly selected.

Research Methodology

Chapter-IV

RESEARCH METHODOLOGY

Research methodology is the plan structure and strategy of investigation conceived so as to obtain answers to research questions and to control variance plan is the overall scheme. Structure is the outline or paradigm of the operation of the variables and strategy includes the method to be used together and analyse the data. The result of any study may be generalizable when the methodology is to be designed in specified manner.

The procedure of the study includes how the study was conducted. It is at this stage crucial decisions are made regarding the selection of the sample, how the data is to be gathered, and analysis made to achieve the objectives of this study. Needless to say that without a proper planning a scientific study can't be feasibly undertaken. In fact successful completion of any study without proper planning is not only difficult but well neigh impossible. In this chapter the researcher embodies all these aspects. According to the objectives of the study the researcher has organized the procedure of the study under following heads :

4.1 Sampling design

4.2 Tools and techniques used

4.3 Data collection

4.4 Statistical analysis

4.1 Sampling design

Multi0stage stratified sampling technique was used for selecting the sample. Purposively Kanpur Nagar was selected in the first stage as per the

requirement of the study and convenience of the investigator. Kanpur Nagar was divided into six zones, out of which four localities that is Gangaganj, Sadullapur, Krishnapuram, Syam Nagar was selected randomly in the second stage. In the third stage 50 women from each selected slum and non-slum areas. Thus, 200 women were selected and the housewives of each selected houses were the unit of investigation for the present study.

4.2 Tools and techniques used

The investigator used the interview schedule for the present study.

Schedule

In general the schedule means securing answers by using a questionnaire proforma, which is filled by the investigator in a face to face situation.

According to Good and Hart (1980) "Schedule is the name usually applied to as set of questions which are asked and filled in by an interviewer in a face to face relationship."

The schedule was developed with the help of the adviser and the other experts in related field. The schedule consist of the following five sections.

(i) General information about the respondents

This section included the socio-economic demographic and other characteristics of the sample i.e. age, education, type of family, family size, family income.

(ii) Information regarding Mass Media (Radio and Television) :

In this section information regarding having/not having mass media and their exposure to respondents are included.

(iii) Knowledge of Nutrition

This section consists of knowledge of meal planning, nutrients and their sources, deficiency diseases and their causes and knowledge of nutritious food. In this section 10 questions were included and all the items were multiple choice.

(iv) Practices in nutrition

In this section practices related to healthy and hygienic food preparation, food preservation, menu planning for different age groups and special conditions and proper care for food handling were included. This section consists of 15 questions all the items were decided on three-point scale always, occasionally, never.

(v) Attitudes towards nutrition

In this section areas, which were decided to cover, are nutritive values of food articles, dietary requirements, health concepts, food beliefs and nutritional care. In this section there are 10 questions and all the items were decided in five-point scale. Totally agree, agree undecided disagree and totally disagree.

4.3 Definition of terms and concept used

Some terms and concept have occurred in this study the investigator realises that lack of understanding or agreement in the meaning of the terminology used is likely to introduce an element of confusion, so far as

an objective evaluation of the work is concerned. It is therefore obligatory to crystallise the meanings and definitions of important terms.

Mass Media

“Media is defined as a medium through which messages are transmitted from a central point to the client whom it is meant.” (Oxford Dictionary).

Nutrition

Nutrition has been defined as food at work in the body. Nutrition includes every thing that happens to food from the time it is eaten until it is used for various functions in the body (Mudambi and Raj Gopal, 1990).

Nutrients

Nutrients are components of food that are needed by the body in adequate amounts in order to grow, reproduce and lead a normal healthy life.

Knowledge

The word knowledge refers to human activity which is intellectual and communicable the many varied meaning of the word can be reduced as awareness and understanding of various aspects of nutrition.

Attitude

An attitude as an enduring organization of motivational emotional, perceptual and cognitive process with respect to some aspect of the individuals world. In present study understanding of various aspects of nutrition.

Practice

Practice may be defined as a phenomenon to put into action. In the present study practice means to what extent women implement their nutrition knowledge during nutritional care.

Urban

An urban settlement is the one which has a population of more than 5000, a density of not less than 1000 person per square miles, a minimum three fourth of its working force as non agriculture."

Slum

"A slum is a building a group of building an area characterized as area of sub-standard housing condition within a city."

4.4 Procedure of data collection

(i) Pilot study

After developing a schedule investigator approached the 20 women randomly selected 10 having mass media (Radio and Television) and 10 not having mass media (Radio and Television) from slum and urban areas and they were required to collect information.

(ii) Reliability

A split half method of correlation was used to know the reliability of the schedule. The correlation was + 0.91 indicates that schedule was found suitable and reliable for the present study.

(iii) Actual study

After modification of the schedule actual study was conducted. The interview was conducted by the investigator herself and the information

was recorded on the predesigned and pretested schedule form the respondents.

(iv) Collection of data

The investigator used the developed pre-tested schedule for getting the first information with the help of interview technique. The first step with regard to collection of data was that each respondent was contacted individually at their residence or place of work. They were first explained the purpose of the study and a report was established so as to gain their active cooperation.

Active cooperation was also given by their husbands and others family member by their cooperation the investigator was able to collect the data to conduct the present study. The questionnaire was administered by the investigator personally on all the selected women and the required information was collected only 200 respondents out of which 100 from urban and 100 from slum were contacted and the entire data was collected within a period of one year.

(v) Scoring Procedure

For different sections of the questionnaire schedule following procedure was adopted for the scoring of the various items.

(a) Scoring of Exposure level of Mass Media (Radio and Television)

The exposure level of mass media was on four point scale. Thus, for daily, twice a week, once a week and never. The weighted score 4, 3, 2, 1 was assigned respectively. Thus, a total weighted score was recorded for each individual by simple summation of all the weighted scores.

(b) Scoring of the knowledge about nutrition

A score 1 was provided to the correct or best alternative of each item while a score 0 was provided in the wrong alternative. Thus a total maximum sum of score on this part was adopted 10.

(c) Scoring of the practices adopted for nutrition

The practices adopted for the nutrition was on three-point scale. Always, occasionally and never. Thus, the score 2, 1 and 0 was given to each statement on this part the minimum score was 0 and maximum total weighted score was 30.

(d) Scoring of the attitude regarding nutrition

For the measuring attitude the five point scale viz., totally agree, agree, undecided, disagree was adopted hence weighted score 4, 3, 2, 1, 0 respectively was provided on this part. The minimum total weighted score was 0 while the maximum total weighted score was 40.

4.5.1 Statistical Analysis

“Statistical analysis are procedures used in finding out the numerical value of the whole study”.

The method used for statistical analysis were :

4.5.1 Percentage

4.5.2 Arithmetic mean

4.5.3 Standard deviation

4.5.4 Test of significance

4.5.1 Percentage

Single comparisons were made on the basis of the percentage. For drawing percentages the frequency of a particular cell was multiplied by 100 and divided by total number of respondents in that particular category to which they belonged.

$$\text{Percentage} = \frac{\text{The sum of all the responses}}{\text{Total number of all the responses}} \times 100$$

(a) Arithmetic mean

Arithmetic mean is the average used in the present study. Arithmetic mean of a series is the figure obtained by dividing the total values of various items by their number..

$$X = \frac{\sum X_i}{N}$$

where,

$$X = \text{Arithmetic mean}$$

$$\sum X = \text{Sum of the scores}$$

$$N = \text{Total number of scores}$$

$$X = A + \frac{\sum f_u}{\sum f_i} X_i$$

where,

$$\bar{X} = \text{Arithmetic mean}$$

$$A = \text{Assumed mean}$$

$$\sum f_u = \text{Product of frequency and deviation from the assumed mean}$$

$$I = \text{Class interval}$$

$$\sum f = \text{Total frequency}$$

4.5.3 Standard Deviation

Concept of standard deviation was first used by Karl Pearson in 1893. It is defined as a positive square root of arithmetic mean of the square of deviation of the given observations from their arithmetic mean.

It is denoted by the Greek letter (read as sigma)

$$\sigma = \sqrt{\frac{\sum fu^2 - (\sum fu)^2 / N}{(n-1)}}$$

where,

σ = Standard deviation

$\sum fu^2$ = Sum of the product of frequency and square of deviation from assumed mean.

$\sum fu$ = Sum of the product of frequency and deviation from assumed mean.

N = Number of observation

I = Class interval

4.5.4 Test of Significance

t- test can be given as

$$t = \frac{[X_1 - X_2]}{\text{C.S.E.}}$$

Where,

X_1 and X_2 are the means of the first and second group

C.S.E. = Mean combined standard error.

It is calculated by the following formula

$$\text{C.S.E.} = \text{C.S.D.} \sqrt{1/n_1 + 1/n_2}$$

Where n_1 and n_2 are the number of observation in the first and second group respectively. C.S.D. is the combined standard deviation. It is calculated by the following formula.

$$\text{C.S.D} = \sqrt{\frac{(n_1-1)\sigma_1^2 + (n_2-1)\sigma_2^2}{n_1 + n_2 - 2}}$$

$$\text{If } n_1 \leq 30$$

$$N_2 \geq 30$$

$$\text{C.S.D} = \sqrt{\frac{n_1 \sigma_1^2 + (n_2-1) \sigma_2^2}{n_1 + n_2 - 1}}$$

$$\text{If } n_1 > 30$$

$$N_2 \leq 30$$

$$\text{C.S.D} = \sqrt{\frac{(n_1-1) \sigma_1^2 + n_2 \sigma_2^2}{n_1 + n_2 - 2}}$$

$$\text{If } n_1 \leq 30$$

$$N_2 > 30$$

$$\text{C.S.D} = \sqrt{\frac{n_1 \sigma_1^2 + n_2 \sigma_2^2}{n_1 + n_2}}$$

$$\text{If } n_1 > 30$$

$$n_1 > 30$$

$$\text{C.S.D} = \sqrt{\frac{\sigma_1^2 + \sigma_2^2}{n}}$$

$$\text{If } n_1 = n_2$$

σ_1^2 and σ_2^2 are standard deviation of first and second group respectively.

Findings and Discussion



Chapter-V

FINDINGS AND DISCUSSION

This chapter deals with the results and its discussion obtained from the present study "The impact of mass communication on nutrition knowledge, attitude and practices of slum and non-slum women dwellers of Kanpur City". For the purpose of convenience, the presentation has been sub-divided under the following heads :

- I. Observations related to the socio-economic structure of the women respondents.
- II. Observations related to nutritional knowledge attitude and practices followed by the respondents belonging to slum and non-slum area.
- III. Observations related to exposure level of mass media (radio, television) among the women respondents belonging to slum and non-slum area.
- IV. Observations related to impact of mass media (radio, television) on nutrition knowledge, attitude of practices of slum and non-slum women respondents.

I. Observations related to the socio-economic profile of the women respondents

Table 5.1 Distribution of women respondents according to area and their age

Age	Slum			Non-slum		
	Frequency	Per cent	Range	Frequency	Per cent	Range
20-30	40	40.0	25.5 ± 1.6	31	31.0	25.7 ± 2.0
30-40	38	38.0	33.7 ± 2.6	31	31.0	34.2 ± 2.4
40 & above	22	22.0	41.6 ± 2.3	38	38.0	42.9 ± 2.8
Total	100	100.0	32.2 ± 5.6	100	100.0	34.8 ± 7.6

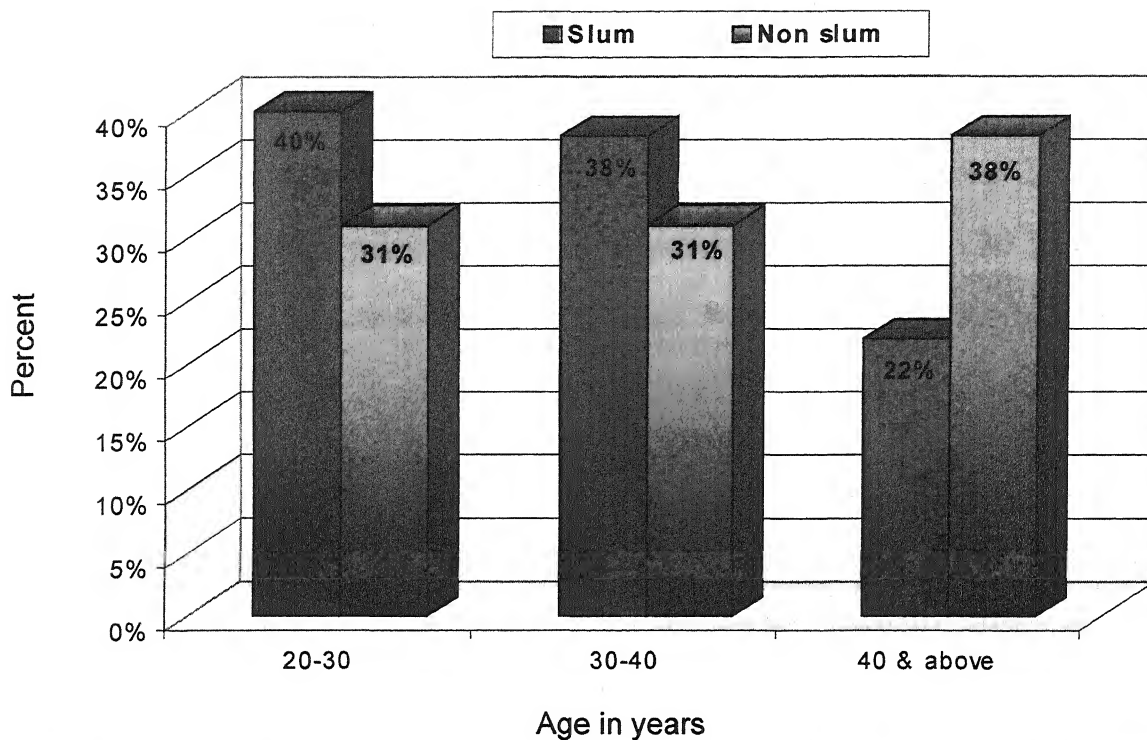


Fig: 5.1- Distribution of women respondents according to area and their age

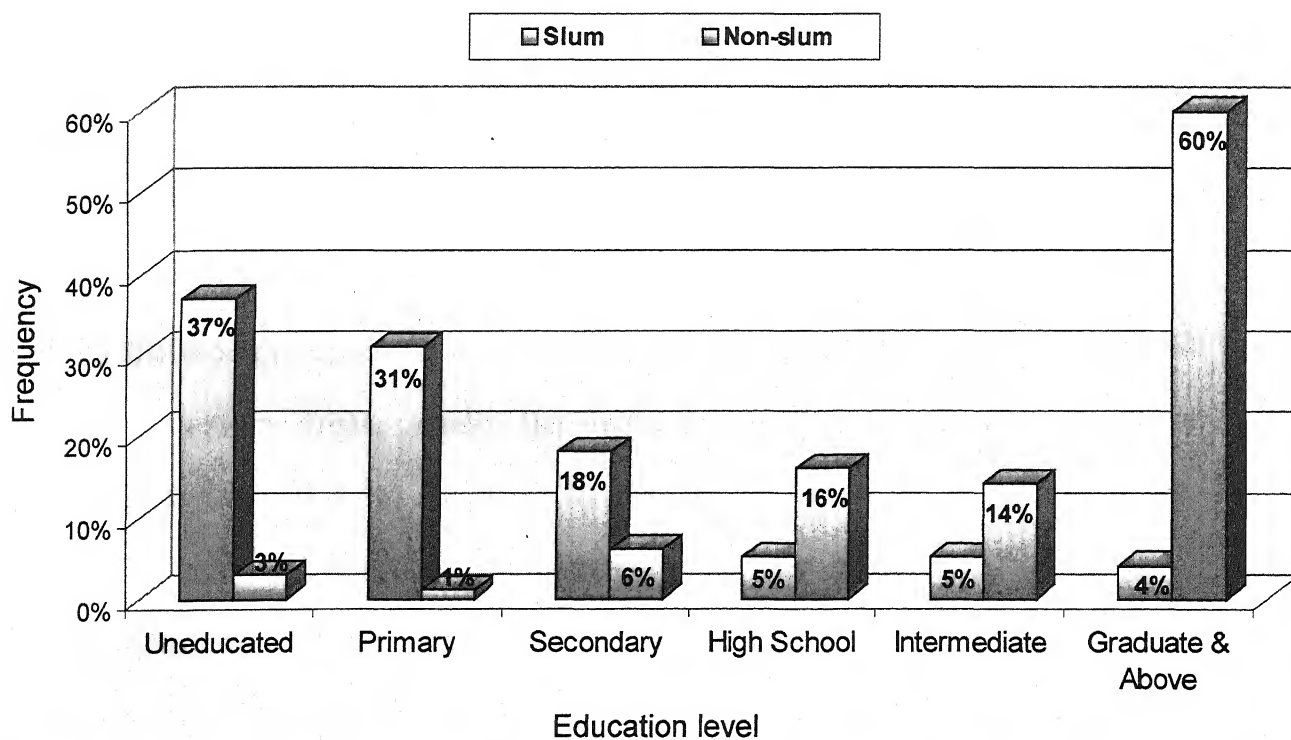


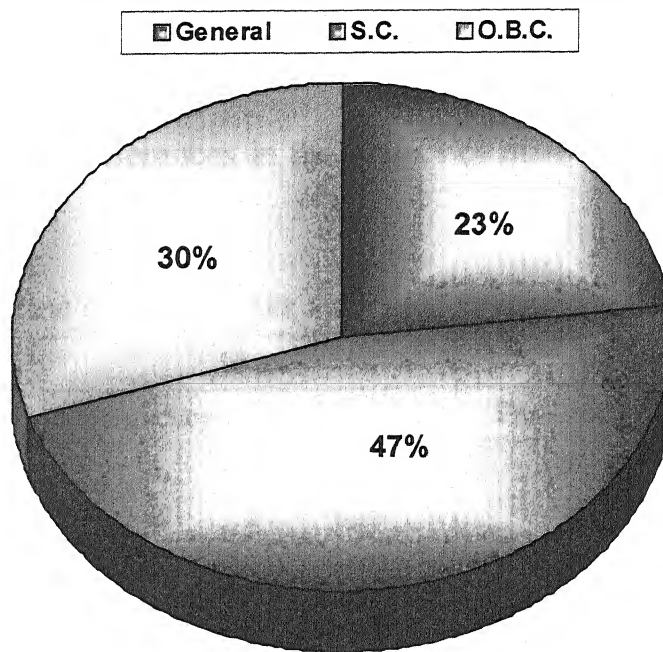
Fig: 5.2- Distribution of respondents according to area and their education

A careful observation of the above table indicates that the 40.0 per cent women respondents of slum area were having age group 20-30 years followed by 38.0 per cent women respondents belonged to 30 to 40 years age group. In non-slum area it was found 38.0 per cent women respondents were having 40 or more than 40 years. Therefore, the proportion of younger women respondents was much higher in slum area than the non-slum area.

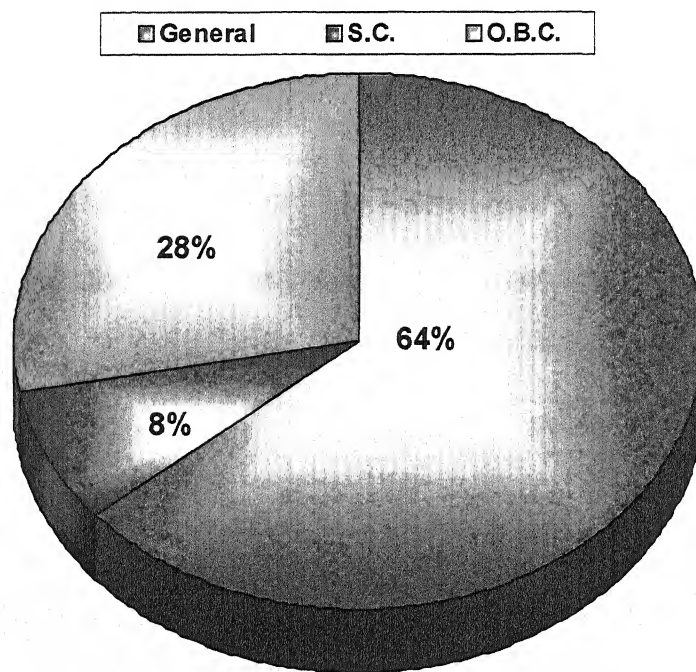
Table 5.2 Distribution of respondents according to area and their education

Education level	Slum		Non-slum	
	Frequency	Per cent	Frequency	Per cent
Uneducated	37	37.0	3	3.0
Primary	31	31.0	1	1.0
Secondary	18	18.0	6	6.0
High School	5	5.0	16	16.0
Intermediate	5	5.0	14	14.0
Graduate & above	4	4.0	60	60.0
Total	100	100.0	100	100.0

The above Table 5.2 reveals the distribution of women respondents according to area and their education. It is one of the important factors, which accelerates the knowledge of the women respondents. The majority of the women respondents were educated up to graduate & above (60.0 %) in non-slum areas, while the majority of women respondents were uneducated (37.0 %) followed by primary level (31.0 %) in slum areas. This indicates that the respondents were not having that educational standard in slum areas which is required at present time. Therefore, the proportion of low educated or not educated proportion of subjects was much higher in slum area. This difference of education between non-slum



SLUM



NON-SLUM

Fig: 5.3- Distribution of women respondents according to area and their caste

and slum may causes differences in the impact of mass media's education about nutrition.

Table 5.3 Distribution of respondents according to area and their caste

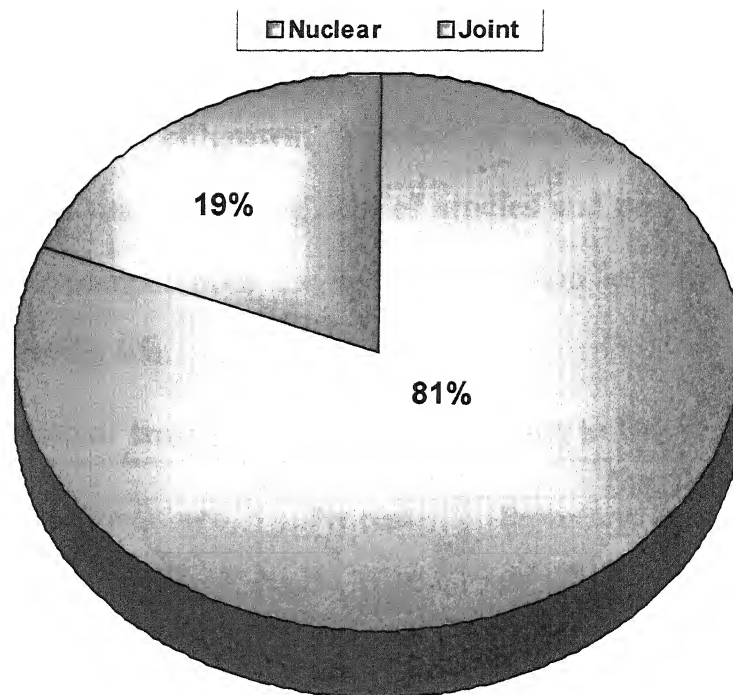
Caste group	Slum		Non-slum	
	Frequency	Per cent	Frequency	Per cent
General	23	23.0	64	64.0
O.B.C.	30	30.0	28	28.0
Scheduled Caste	47	47.0	8	8.0
Total	100	100.0	100	100.0

Above Table 5.3 shows the distribution of women respondents according to caste group and area. Caste is an important social institution. Majority of women respondents (47.0 %) were of Scheduled caste group followed by (30.0), O.B.C. caste in slum areas. While maximum 64.0 per cent respondents were of general caste followed by 28.0 per cent women respondents were of O.B.C. in non-slum areas.

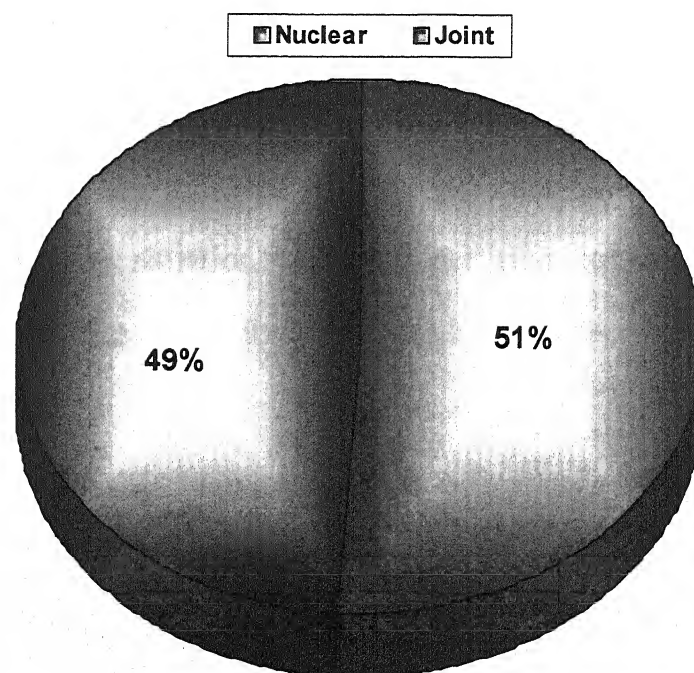
Table 5.4 Distribution of women respondents according to area and family type

Type of family	Slum		Non-slum	
	Frequency	Per cent	Frequency	Per cent
Joint	19	19.0	49	49.0
Nuclear	81	81.0	51	51.0
Total	100	100.0	100	100.0

It is evident from Table 5.4 that joint family system in slum areas is disintegrating into nuclear families. Though, joint family system has its own advantages but non-a-days most of the families prefer to live independently. Majority of the women respondents (81.0 %) under study were having nuclear families in slum are, while 51.0 per cent of respondents were having nuclear families in non-slum areas. The trend



SLUM



NON-SLUM

Fig: 5.4- Distribution of women respondents according to area and family type

explains the advancement of growing number of nuclear family in both areas. It also explains that increasing cost of articles and poorer resources of the people have compel both the areas population in move towards nuclear system of family life.

Table 5.5 Distribution of women respondents according to family size

Family size	Slum		Non-slum	
	Frequency	Per cent	Frequency	Per cent
Up to 3 members	2	2.0	2	2.0
3 – 5 members	23	23.0	36	36.0
5 – 7 members	51	51.0	35	35.0
7 & above members	24	24.0	27	27.0
Total	100	100.0	100	100.0

The perusal of Table 5.5 which sows that more than fifty per cent of the families have ranged 5 to 7 members followed by 24.0 per cent have 7 or more than seven in slum areas. In non-slum areas 36.0 per cent families have ranged 3-5 members followed by 35.0 per cent have ranged 5 to 7 members. The alarming situation was 51.0 per cent population of slum from 5 to 7 family size more than the required norms, this population needs to be educated.

Table 5.6 Inter-relationship between age and education according to area-wise

Education level	Age-group (years)					
	Slum			Non-slum		
	20-30	30-40	40 & above	20-30	30-40	40 & above
Uneducated	10	19	8	-	-	3
Primary	9	16	6	-	1	-
Secondary	14	1	3	1	1	4
High School	4	-	1	5	4	7
Intermediate	1	1	3	2	7	5
Graduate & above	2	1	1	23	18	19
Total	40	38	22	31	31	38

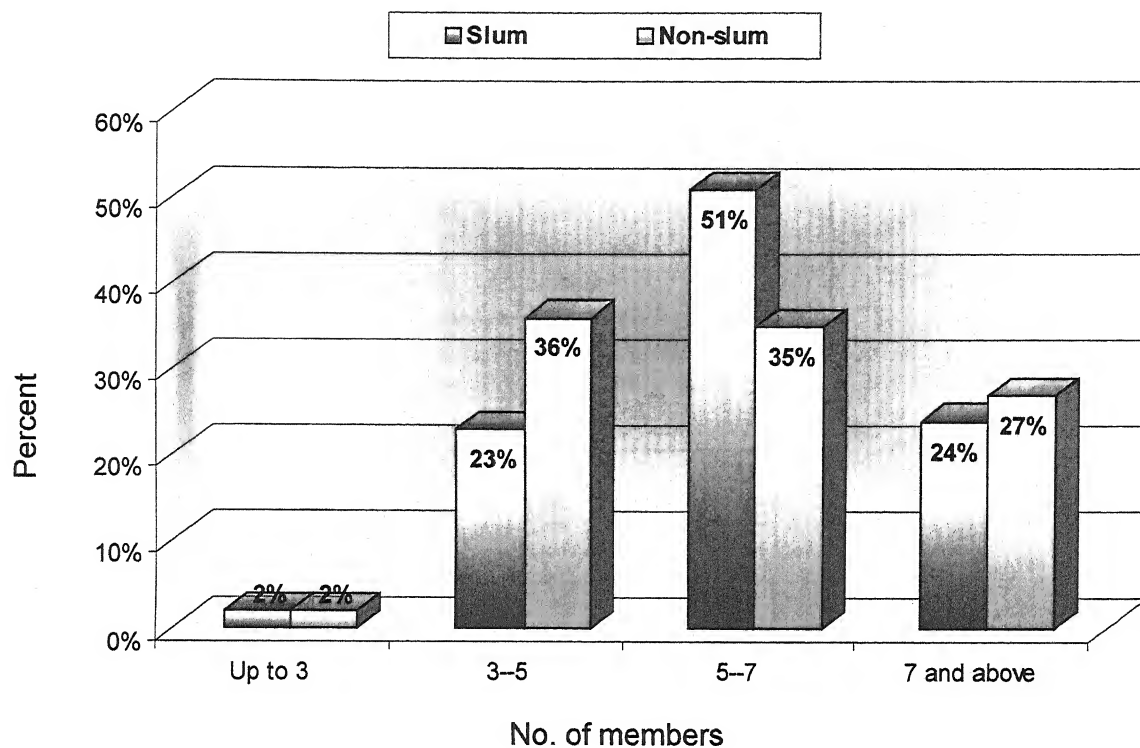


Fig: 5.5- Distribution of women respondents according to family size

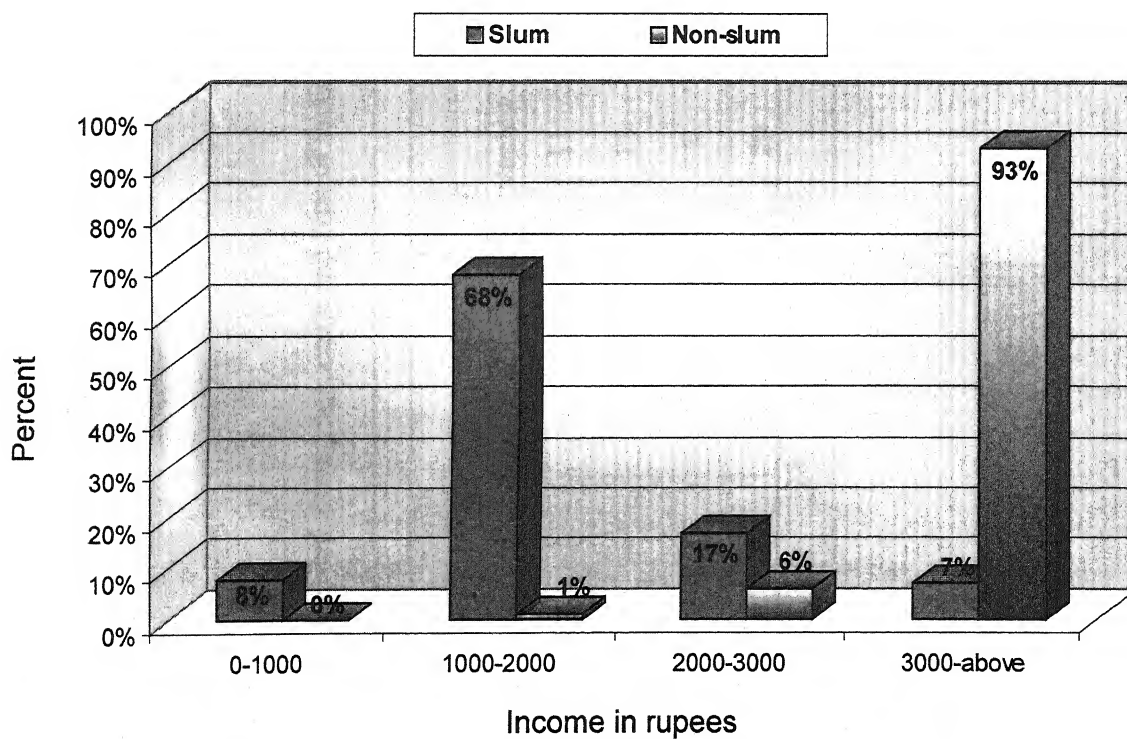


Fig: 5.6- Distribution of women respondents according to areas and their annual family income

Table 5.7 Inter-relationship among age, caste and type of family in both areas

Age group	Caste											
	Slum						Non-slum					
	General			SC			General			OBC		
	Joint	Nuclear		Joint	Nuclear		Joint	Nuclear		Joint	Nuclear	
20-30	1	6		10	11		12	4		10	4	
30-40	-	8		2	13		12	11		2	3	
40 & above	3	5		2	5		6	19		3	6	
Total	4	19		14	29		30	34		16	13	
	23			47			64			28		
												8

The inter-relation between age and education reveal that 50 per cent respondents of 30 to 40 age group in slum area were having uneducated whereas 36.4 per cent respondents of 40 & above age group in slum area were having uneducated. Fifty per cent respondents of 40 and above age group in non-slum area were having graduate and above education level.

The interrelationship among age, caste and type of family (Table 5.7) reveals that 42.00 per cent women respondents were belonged nuclear families of general caste group having 30 to 40 age group in slum area while in cent per cent women respondents were belonged to joint families of other backward class from 20 to 30 age group in slum area. 66.7 per cent respondents were from joint families of OBC belonged to 20-30 age group. Whereas, 75.0 per cent women respondents were belonged to nuclear families having S.C. caste group from 40 and above age group in non-slum area.

Table 5.8 Distribution of women respondents according to areas and their annually family income

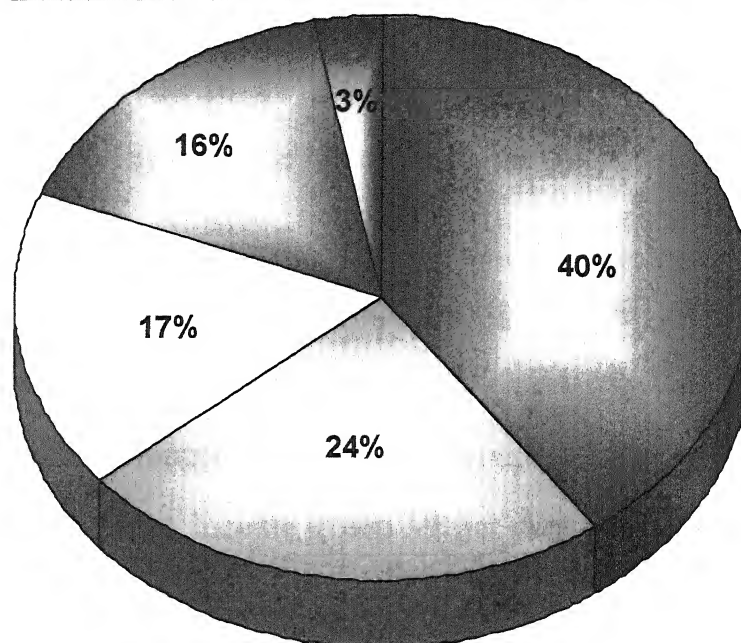
Income	Slum		Non-slum	
	Frequency	Per cent	Frequency	Per cent
0-1000	8	8.0	-	-
1000-2000	68	68.0	1	1.0
2000-3000	17	17.0	6	6.0
3000 & above	7	7.0	93	93.0
Total	100	100.0	100	100.0

Above Table 5.8 indicates that distribution of women respondents according to areas and their annual family income 68.0 per cent women respondents were earned family income 1000 to 2000 annually followed by 17.0 per cent women respondents from 2000 to 3000 income group in slum areas. Maximum 93.0 per cent women respondents belonged to 3000

Table 5.9 Inter-relationship among age, caste and type of family in both areas

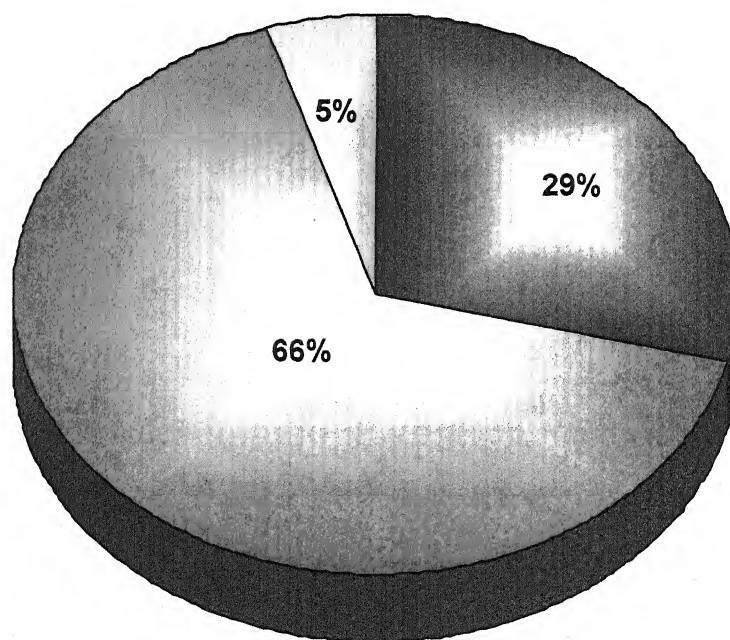
Income	Age group																	
	Slum									Non-slum								
	20-30			30-40			40 & above			20-30			30-40			40 & above		
	General	OBC	SC	General	OBC	SC	General	OBC	SC	General	OBC	SC	General	OBC	SC	General	OBC	SC
0-1000	1	1	1	-	1	2	-	-	2	-	-	-	-	-	-	-	-	-
1000-2000	5	9	16	7	8	10	5	3	5	-	-	-	-	-	-	1	-	-
2000-3000	-	1	4	1	3	3	2	2	1	1	1	-	1	1	-	2	-	1
3000-4000	1	1	-	-	1	2	1	-	1	15	13	1	23	4	3	22	9	3
Total	7	12	21	8	13	17	8	5	9	16	14	1	23	5	3	25	9	4
	40			38			22			31			31			38		

■ Service ■ House wife ■ Business ■ Labour ■ Cast occupation



SLUM

■ Service ■ House wife ■ Business



NON-SLUM

Fig: 5.7- Distribution of women respondents according to areas and occupation

or more than 3000 family income in non-slum area. In slum area there were low education and low income seen the population inherent the nature of population.

Table 5.9 shows the inter-relationship among income group, age group and caste of the family in both areas. 76 per cent scheduled caste women respondents were belonged to 20-30 age group had family income 1000-2000 range while in same income group 59 per cent scheduled caste women respondents were belonged to 30 to 40 age group in slum areas.

In non-slum areas maximum percentage of women respondents were belonged to general caste earned 3000 & above family income in all age categories.

Table 5.10 Distribution of women respondents according to area and occupation

Occupation	Slum		Non-slum	
	Frequency	Per cent	Frequency	Per cent
Labour	16	16.0	-	-
Housewife	24	24.0	66	66.0
Service	40	40.0	29	29.0
Caste occupation	3	3.0	-	-
Business	17	17.0	5	5.0
Total	100	100.0	100	100.0

Above Table 5.10 reveals that distribution of women respondents according to areas and their occupation 40.0 per cent women respondents were having service followed by 24.0 respondents were housewife in slum area. Maximum 66.0 per cent women respondents were having housewife and 29.0 per cent women respondents were having service in non-slum area.

Observations related to the nutritional knowledge, attitude and practices of the respondents belonging to slum and non-slum areas

Table 5.11 Nutritional knowledge among the women respondents belonging to slum and non-slum area

Area	Slum	Non-slum
Frequency	100	100
Mean	8.45	9.63
S.D.	1.54	1.86
t	1.651 ($P > 0.5$)	

The above Table 5.11 reveals that the mean nutritional knowledge among the women respondents belonging to slum and non-slum areas. The mean nutritional knowledge was more in women respondents of non-slum area (9.63) as compared to women respondents of slum area (8.45). Statistically no significant difference in mean nutritional knowledge among women respondents belonging to slum and non-slum areas. The knowledge developed for non-slum and slums were just equal the mass media did not discriminate to population in their development of knowledge about nutrition and nutritive value of food. Similar findings were secured by Kumar *et al.* (1989) in his study on the subjects nutrition knowledge, attitude and practices. They found that larger proportion of respondents had adequate knowledge of nutrition.

Table 5.12 Attitude towards nutrition among the women respondents belonging to slum and non-slum area

Area	Slum	Non-slum
Frequency	100	100
Mean	27.65	28.53
S.D.	4.06	4.63
t	1.843 ($P > 0.5$)	

The above table highlights the mean of the attitudes towards nutrition among the women respondents belonging to slum and non-slum area. The mean (28.53) nutrition in non-slum was more than mean of slum area. 't' value was found to non-significant (1.843) hence there is no significant difference in mean nutritional attitude among women respondents belonging to slum and non-slum areas. The individual score on attitude scale may vary between 0.30. In this study the secure means for non-slum and slums were 28.53 and 27.64 respectively. These mean scores are very close to 30 it means both the population are high impressed and have developed highly positive attitude for nutrition and nutritive value of food as advertised by the mass media. It also ensures that the mass media is a highly competent agency of developing attitudes towards nutrition.

Table 5.13 Nutritional practices among the women respondents belonging to slum and non-slum area

Area	Slum	Non-slum
Frequency	100	100
Mean	27.23	28.37
S.D.	3.74	4.12
t	1.712 ($P > 0.05$)	

The above Table 5.13 highlights the mean nutritional practices among the women respondents belonging to slum and non-slum areas. The mean practices was more in non-slum area (28.37) as compared to women respondents of slum areas. The value of 't' was non-significant at 5 per cent probability level hence statistically no significant difference in mean practices among women respondents belonging to slum and non-slum areas. These results reveal that mass media was the competent agency

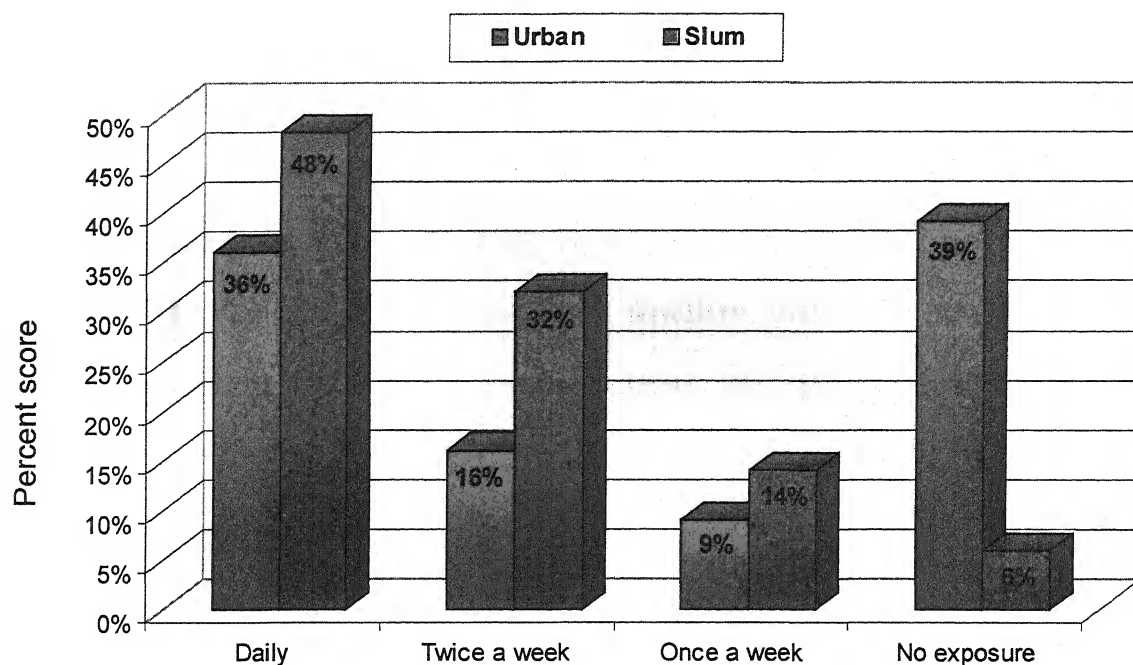


Fig: 5.8- Distribution of women respondents according to exposure level and area

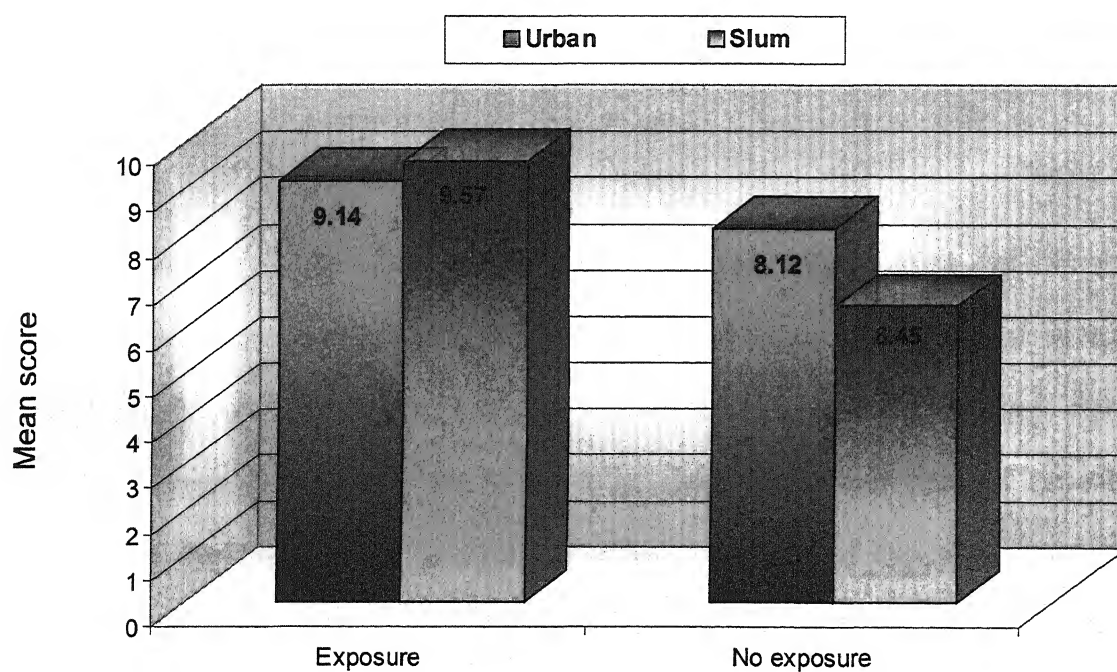


Fig: 5.9- Mean knowledge according to exposure of respondents among urban and slum area

which inoculate knowledge develops attitudes and employ practices both for slums and non slums. Ramdas Murthy *et al.* (1992) practice regarding use of food products green leafy vegetable, raw vegetable and fruits was improved after nutrition education". Another study was conducted by Sachdeva Rajbir (1993) its findings were "the gain in knowledge and practices of mothers were higher in the nutrition education group (NEG) as compared to control group.

Observations related to exposure level of mass media (Radio, Television) among the women respondents belonging to slum and non-slum area

Table 5.14 Distribution of respondents according to exposure level and areas

Income	Slum		Non-slum	
	Frequency	Per cent	Frequency	Per cent
Daily	36	36.0	48	48.0
Twice a week	16	16.0	32	32.0
Once a week	9	9.0	14	14.0
No exposure	39	39	6	6.0
Total	100	100.0	100	100.0

Above Table 5.14 indicates that the distribution of women respondents according to exposure level and areas. Majority of women respondents received exposure daily in non-slum area while the majority of women respondents did not receive in slum area. The present research explores the nature and quantum of effect on point of exposure level, the non-slums have better exposure count than the slum women naturally therefore the development of knowledge their attitude and employment of practices.

Table 5.15 Effect of exposure level on mean knowledge of women respondents in slum area

Exposure level	Frequency	Mean	S.D.
Daily	36	10.16	1.32
Twice a week	16	9.73	0.97
Once a week	9	7.46	0.78
No exposure	39	8.12	1.12

Above Table 5.15 shows that effect of exposure level on mean knowledge of women respondents in slum area. The mean score was gradually falls with less and less amount of exposure of the media. Mean score was 8.12 attained against no exposure, which may also be attributed to the personal conservation and diffusion of knowledge through other agencies.

Table 5.16 Effect of exposure level on mean knowledge of women respondents in non-slum area

Exposure level	Frequency	Mean	S.D.
Daily	48	11.16	1.36
Twice a week	32	9.27	0.86
Once a week	14	9.68	0.89
No exposure	6	6.45	1.04

Table 5.16 highlights the effect of exposure level on mean knowledge of respondents in non-slum area. The mean of received daily exposure were 11.16 while 9.27 mean received respondents twice a week, and 6.45 mean knowledge of the respondents did not received exposure in non-slum area. The impact of exposure seems to be a significant factor which falls significantly with the amount of exposure.

Table 5.17 Effect of exposure level on practice of women respondents in slum area

Exposure level	Frequency	Mean	S.D.
Daily	36	30.14	2.45
Twice a week	16	28.35	2.89
Once a week	9	25.31	2.03
No exposure	39	27.73	3.26

Above Table 5.17 reveals that the effect of exposure level on practice of women respondents in slum area. The mean practice of women respondents who received daily exposure were (30.14). The respondents who did not received exposure were mean practice 27.73 in slum area. The value of standard deviation was high in who did not received exposure in slum area. It seems the other agencies; friends, neighbours rather than the mass media were more proficiently with slum areas.

Table 5.18 Effect of exposure level on practice of women respondents in non-slum area

Exposure level	Frequency	Mean	S.D.
Daily	48	32.83	2.62
Twice a week	32	30.62	3.74
Once a week	14	27.25	2.16
No exposure	6	25.34	3.85

Above Table 5.18 shows the effect of exposure level on practice of women respondents in non-slum area. The women respondents who received daily exposure were mean 32.83 followed by mean twice a week 30.62, while more variation in the respondents who received no exposure were 3.85 in non-slum area. Here again no exposure this can be attributed

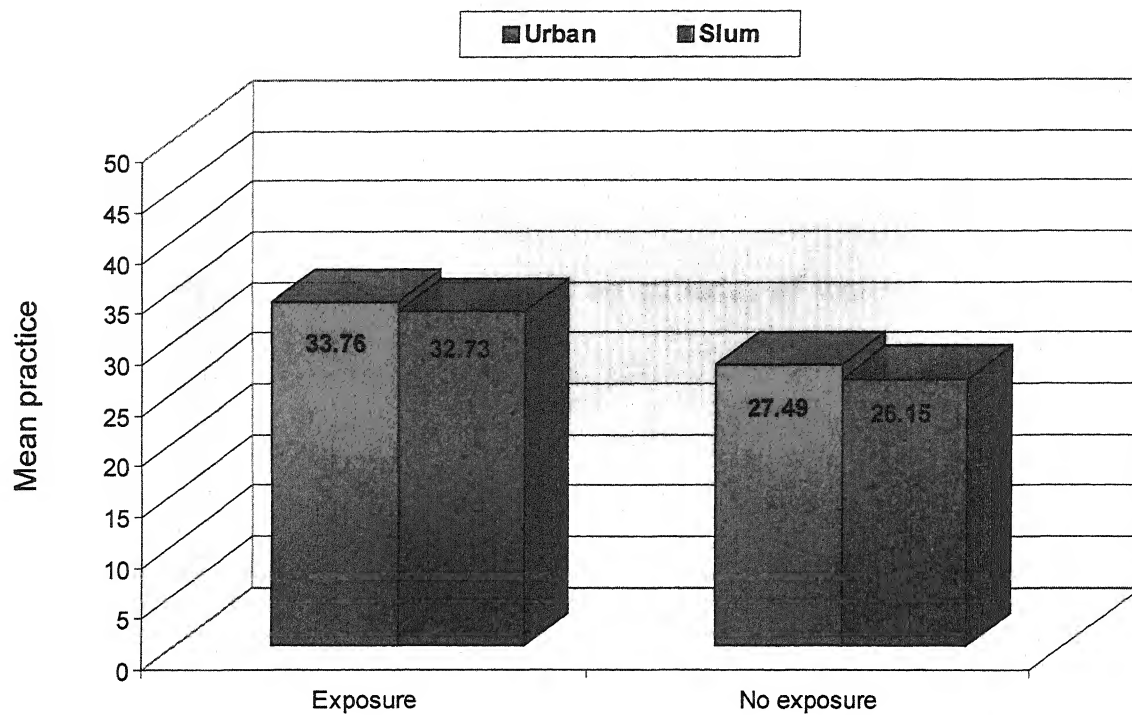


Fig: 5.10- Practice according to exposure of respondents in urban and slum areas

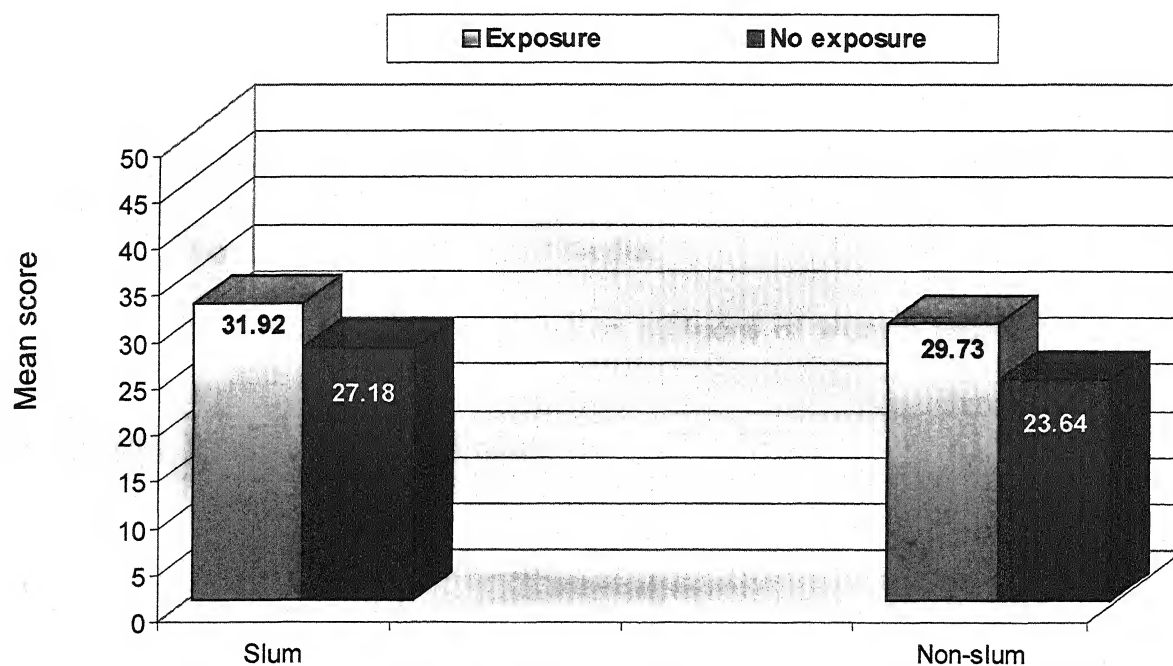


Fig: 5.11- Attitude according to exposure of respondents in urban and slum areas

to conventional practices of the nutrients, personal conversation or by the statement of the elderly persons.

Table 5.19 Effect of exposure level on attitudes of women respondents in slum area

Exposure level	Frequency	Mean	S.D.
Daily	36	34.67	2.62
Twice a week	16	31.35	2.17
Once a week	9	28.06	4.16
No exposure	39	27.18	5.89

Table 5.19 reveals that the effect of exposure level of attitudes of respondents in slum area. The mean attitude of women respondents who received daily exposure were 34.67, women respondents received exposure twice a week were 31.35. The mean attitude of respondents who did not received exposure were 27.18 and standard deviation 5.89 in slum area. The development of slum women against their exposure level to media according to trend so far mean score level gradually falls with decrease in the amount of exposure to the mass media.

Table 5.20 Effect of exposure level on attitudes of women respondents in non-slum area

Exposure level	Frequency	Mean	S.D.
Daily	48	32.47	1.38
Twice a week	32	31.63	2.65
Once a week	14	27.48	6.73
No exposure	6	23.64	5.04

Above Table 5.20 shows the effect of exposure level on attitudes of women respondents in non-slum area. The mean attitude of respondents who received daily exposure were 32.47, women respondents received

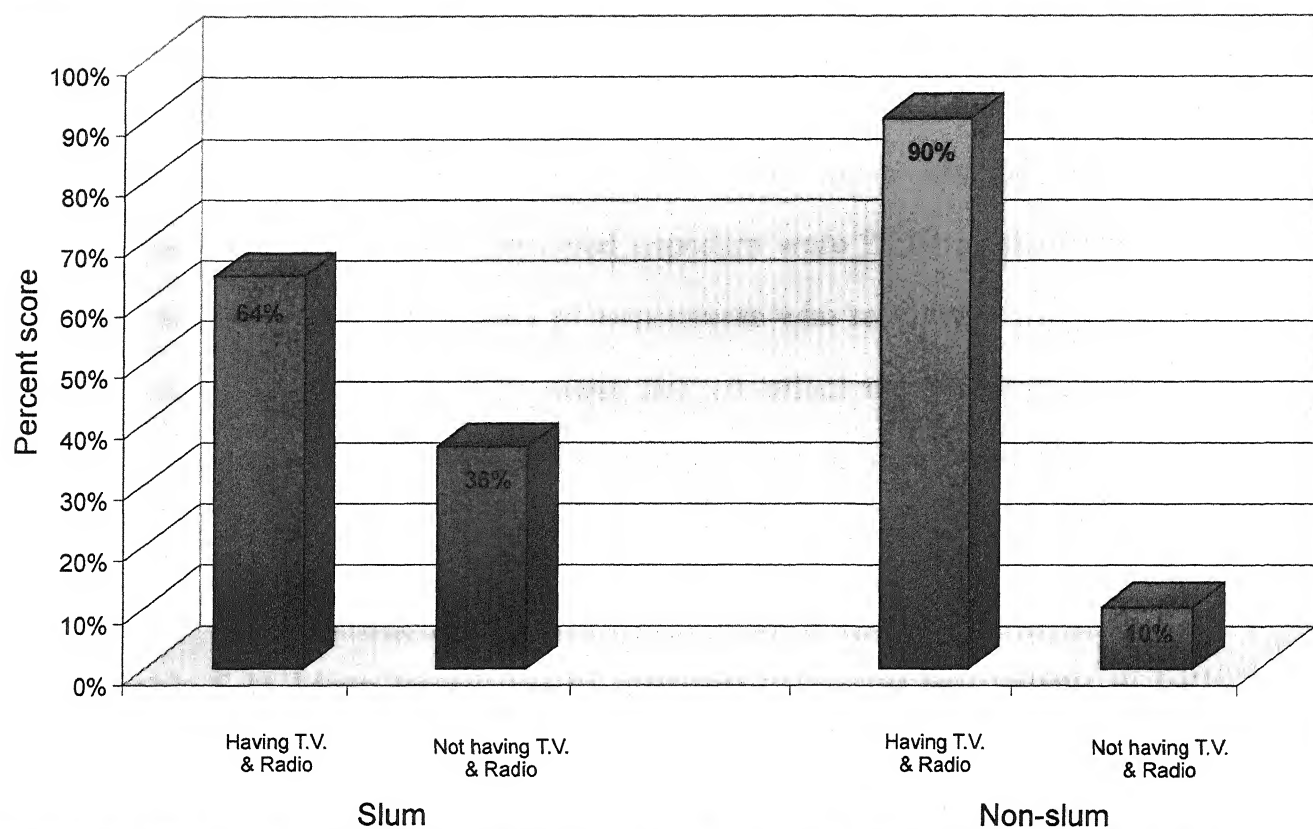


Fig: 5.12- Distribution of respondents according to area having / not having TV and Radio

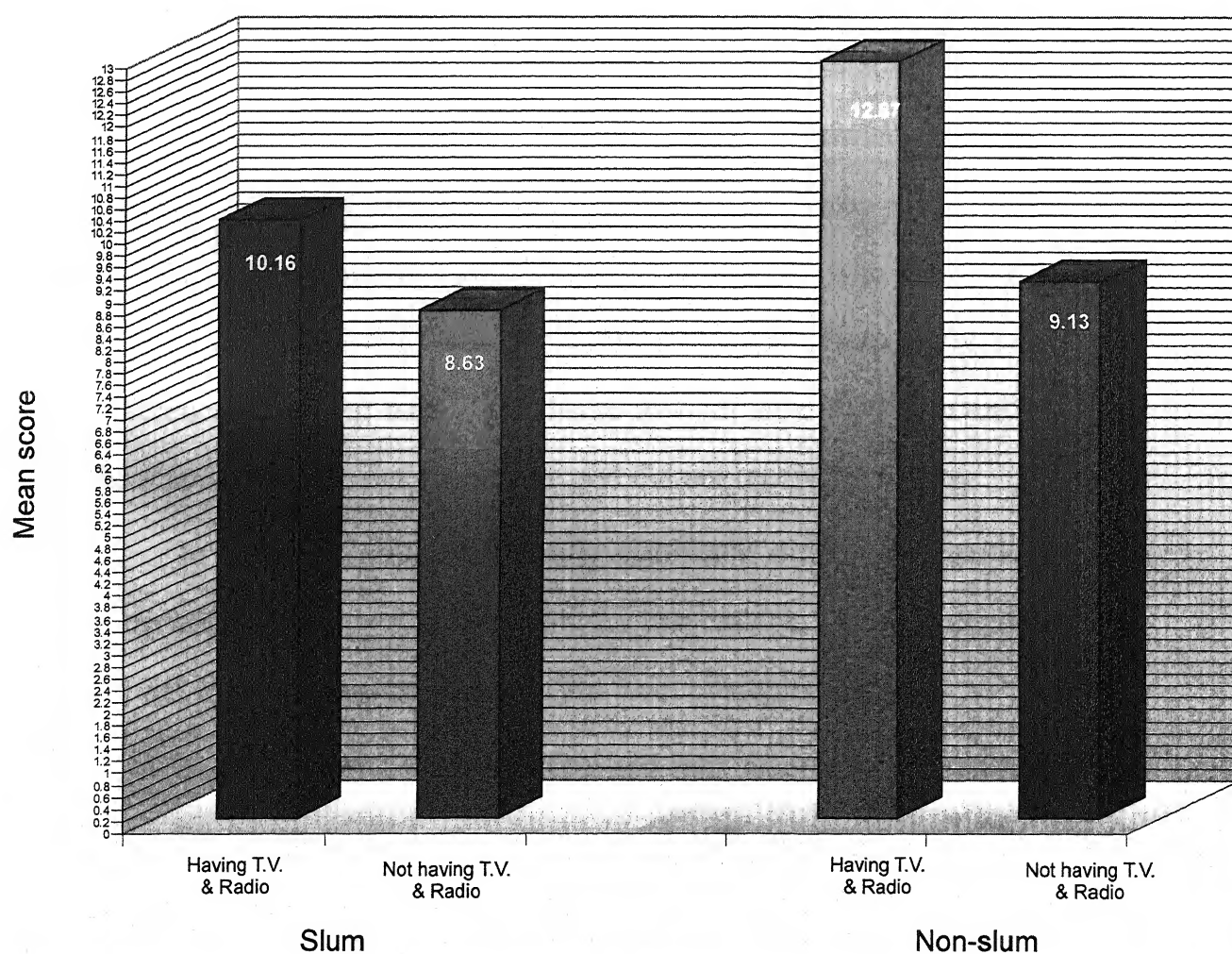


Fig: 5.13- Nutritional knowledge of respondents having /not having TV and Radio in both the areas

exposure twice a week were 31.63. The mean attitude of women respondents who did not received exposure were 23.64 in slum area. The standard deviation of attitude of respondents who received exposure once a week 6.73. It is true that media has an effect on the development of attitudes of women in non-slum area but other agencies like conventional system of nutrition, personal chats and occasional prescription of the medical practioners also attributes to the attitudes of the non-slum women.

Table 5.21 Mean knowledge to exposure of women respondents in both areas

Exposure/No exposure		Frequency	Mean	S.D.	t	P
Slum	Exposure	61	9.14	0.89	8.185	< 0.05
	No exposure	39	8.12	1.12		
Non-slum	Exposure	94	9.57	0.97	9.375	< 0.05
	No exposure	6	6.45	1.04		

Above Table 5.21 highlights the mean knowledge according to exposure of women respondents in both areas. Those who received the exposure their knowledge mean was 9.14 and those who could not receive their mean knowledge were 8.12 in slum area. Statistically significant difference regarding mean knowledge in slum area was observed between the respondents received exposure and did not receive exposure.

In non-slum areas statistically significant difference regarding mean knowledge was observed between the respondents received exposure and did not receive exposure at 5 per cent level of significance.

In this regard both supporting and non supporting references can be cited Bhardwaj (1981) secured highly positive correlation with gain in knowledge through mass media while Mittal *et al.* (1982) record different

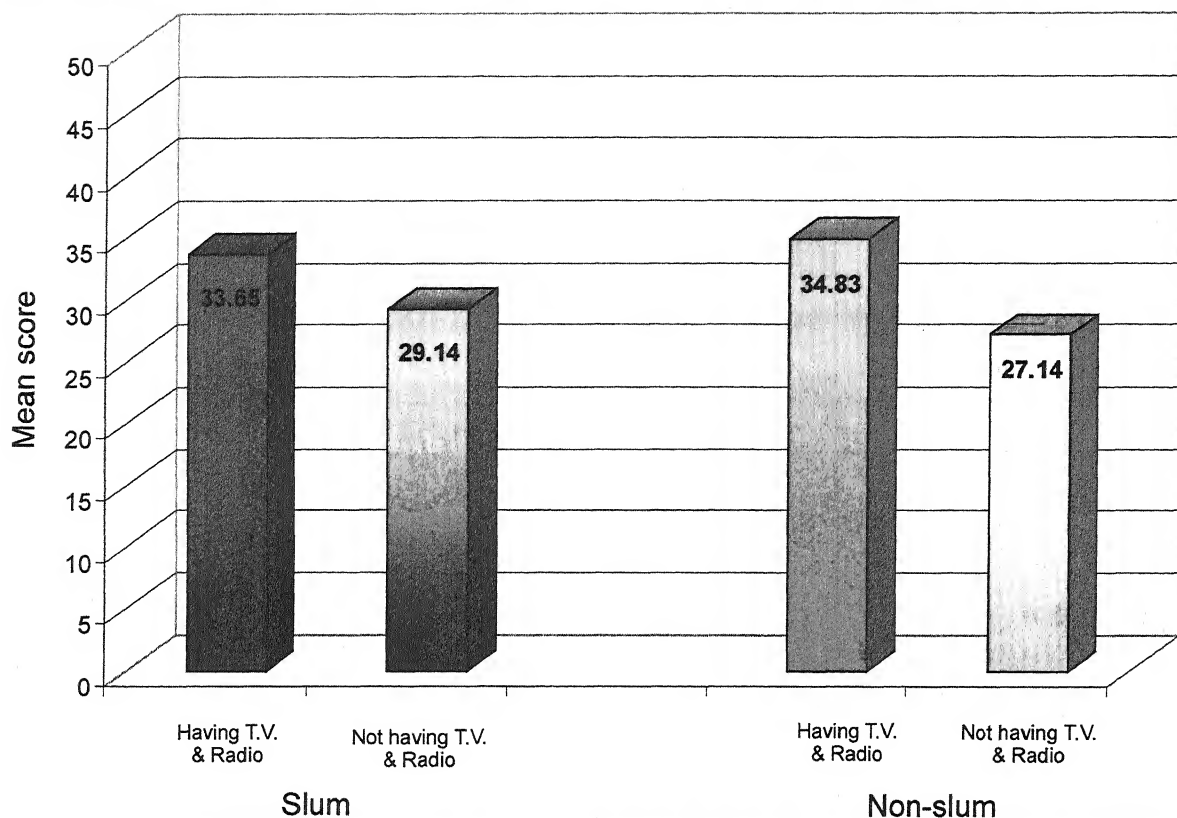


Fig: 5.14- Attitude among the respondents having / not having TV and Radio in urban area

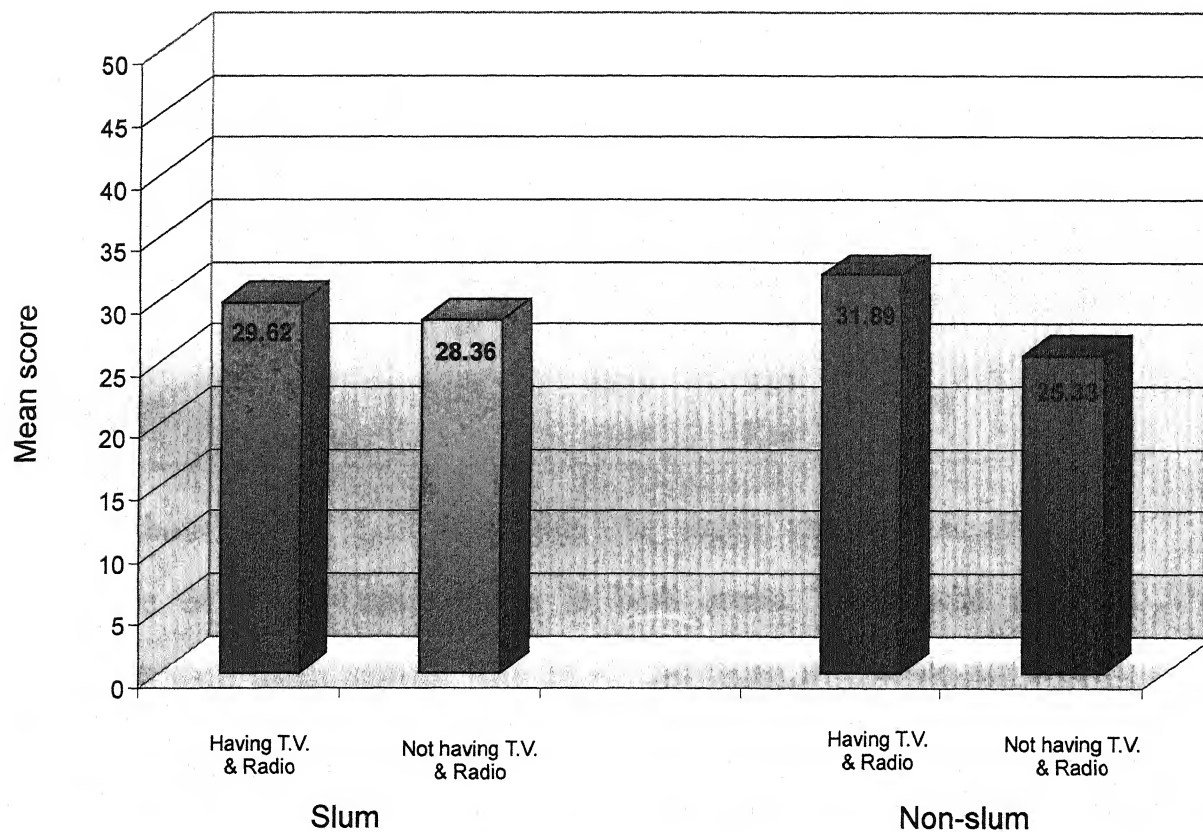


Fig: 5.15- Practices among the respondents having / not having TV and Radio in both areas

readings that women gathered information about nutrition from mothers, mother-in-law and doctors etc.

Table 5.22 Practice according to exposure of women respondents in both areas

Exposure/No exposure		Frequency	Mean	S.D.	T	P
Slum	Exposure	61	33.76	3.05	3.121	< 0.05
	No exposure	39	27.49	3.24		
Non-slum	Exposure	94	32.73	5.16	4.403	< 0.05
	No exposure	6	26.15	4.82		

Above Table 5.22 highlights the mean practice according to exposure of women respondents in both areas. The mean score value of practice both exposed to or non-exposed to mass media was high. The practice impact on the mean score for non-slum women was significant both for the variables exposure and no exposure. These results established the impact of mass media on practice effect also.

Table 5.23 Attitude according to exposure of women respondents in both areas

Exposure/No exposure		Frequency	Mean	S.D.	T	P
Slum	Exposure	61	31.92	3.11	7.905	< 0.05
	No exposure	39	27.18	5.89		
Non-slum	Exposure	94	29.73	3.57	6.108	< 0.05
	No exposure	6	23.64	5.04		

Above Table 5.23 highlights the mean attitudes according to exposure of women respondents in both areas. Those who received exposure their mean attitude was 31.92 and those who could not receive exposure their mean attitude was 27.18. The value of t was significant at 5 per cent level of significance hence statistically significant difference

regarding mean attitude was observed between the respondents received exposure and did not receive exposure in slum area.

The non-slum area, those who receive exposure their mean attitude was 29.73 and those who could not receive exposure their mean attitude was 23.64. Statistically significant difference regarding mean attitude was observed between the women respondents received exposure and did not receive exposure.

Attitude is always a measure of favour or disfavour. It is developed gradually and becomes a permanent sentiment. Radio and television are the significant information sources of individuals. The mean score value for the two are highly significant even that both types of women respondents a highly positive attitude towards nutrition in non-slum area.

The mean score values for knowledge, practice and attitudes for the two types of women respondents slum and non-slum under the two variables. The exposed to mass media or not exposed to mass media are all significantly high establishing the fact that these respondents have earned significantly high knowledge, practice and attitudes towards nutrition.

Observations related to Impact of Mass Media (Radio, Television) on Nutrition knowledge, attitude and practices of the slum and non-slum women respondents

Table 5.24 Distribution of women respondents according to area and television and radio

Area	Having TV & Radio		Not having TV & Radio		Total
	Frequency	Per cent	Frequency	Per cent	
Slum	64	64.0	36	36.0	100
Non-slum	90	90.0	10	10.0	100

Above Table 5.24 shows the distribution of women respondents according to area and having/not having T.V. and Radio. Majority of the respondents having Radio and Television in non-slum area while the majority of women respondents did not having Radio and Television in slum area.

Table 5.25 Nutritional knowledge among the women respondents having/not having Radio and Television in both areas

Having/Not having TV & Radio		Frequency	Mean	S.D.	t	P
Slum	Having TV & Radio	64	10.16	2.01	4.251	< 0.05
	Not having TV & Radio	36	8.63	1.42		
Non-slum	Having TV & Radio	90	12.87	2.12	6.861	< 0.05
	Not having TV & Radio	10	9.13	1.87		

Above Table 5.25 highlights that the nutritional knowledge among the women respondents having/not having radio and television. Those who had Radio and Television their knowledge mean was 10.16 and those who did not have Radio and Television their mean knowledge was 8.63 in slum area. Statistically significant difference regarding mean knowledge in slum area at 5 per cent level of significance.

In non-slum area those who had Radio and Television, their mean was 12.87 and those who did not have Radio and Television, their mean knowledge was 9.13. Statistically significant difference regarding mean knowledge in non-slum area was observed between the women respondents having/not having Radio and Television. Describing that owning the media does have an impact for a significant difference was obtained ensuring that those who have television and radio sets have better knowledge than those not having these articles.

Table 5.26 Attitude among the women respondents having/not having Radio and Television in both areas

Having/Not having TV & Radio		Frequency	Mean	S.D.	t	P
Slum	Having TV & Radio	64	33.65	4.72	6.981	< 0.05
	Not having TV & Radio	36	29.14	4.98		
Non-slum	Having TV & Radio	90	34.83	3.42	8.613	< 0.05
	Not having TV & Radio	10	27.14	6.13		

Above Table 5.26 shows that the mean attitude among the women respondents having/not having Radio and Television in both areas. Those who had Radio and Television their mean was 33.65 and those who did not have Radio and Television their mean attitude was 29.14 in slum area. The 't' value was found to be significant at 5 per cent level of significance hence statistically significant difference regarding mean attitude in slum area was observed between the women respondents having/not having Radio and Television, concluded that possession of the media the radio and television sets were highly appreciable and effective in both development of positive attitude towards nutrition.

In non-slum area, those who had radio and television their mean was 34.83 and those who did not have radio and television their mean attitude was 27.14 in non-slum area. Statistically significant difference regarding mean attitude in non-slum was observed between the women respondents having/not having radio and television. Possessing television and radio sets were an attribute, which causes development of positive attitude for nutrition.

Table 5.27 Practice among the women respondents having/not having Radio and Television in both areas

Having/Not having TV & Radio		Frequency	Mean	S.D.	t	P
Slum	Having TV & Radio	64	29.62	3.79	6.613	< 0.05
	Not having TV & Radio	36	28.36	3.08		
Non-slum	Having TV & Radio	90	31.89	3.11	8.903	< 0.05
	Not having TV & Radio	10	25.33	4.37		

Above Table 5.27 perusal that practice among the women respondents having/not having radio and television in both areas. Those who had television and radio their mean was 29.62 and those who did not have television and radio their mean was 28.36 and the value 't' was significant hence statistically significant difference between having television and radio and not having television and radio in slum area.

In non-slum area mean practice having television and radio was 31.89 and who did not have television and radio their mean was 25.33. Statistically significant difference was found to be having television and radio and not having television and radio concluded that ownership of material provides better chances for availing better choices of practice in nutrition for non-slum area.

In this study whether the attribute were knowledge or attitude or practices, the women respondents who have television and radio sets have an upper edge over those who do not have the radio and television sets. The ownership provides an ample inducement to use it and naturally therefore it was bound to effect the development of respondent's knowledge, attitude and practice effect.

Summary and Conclusion

Chapter-VI

Summary and Conclusion

The present research problem entitled, "The impact of mass communication on nutrition knowledge, attitude and practices of slum and non-slum women dwellers of Kanpur City" was undertaken with objectives. The family, the mother, sisters and other family members are the primary agent of teaching learning situation. The society has developed different media of communicating knowledge to its clients. These mass media like radio, television, newspapers and books etc. are very much popular in non-slum as well as slum society. These mass media are playing good role for awareness of women regarding health and nutrition related problems and their solutions.

The present research problem entitled, "The impact of mass communication on nutrition knowledge, attitude and practices of slum and non-slum women dwellers of Kanpur City" presented in chapter three. In chapter four the analysed data with regard to the objectives define has been presented and discussed scientifically. Analysed data with caption has been discussed in detail in chapter five.

Research Methodology

The study was conducted in Kanpur district of the U.P. state. For solution of samples, a multi-stage sampling procedure has been adopted. At the first stage, one district has been selected purposively, at second stage, four localities were selected randomly and, at third stage, fifty

women from each locality in slum and non-slum areas have been selected randomly. The data were collected with the help of structured interview schedule. Eight socio personal variables were selected as independent variables for the study. The dependent variables selected for the study were knowledge, attitude and practices. Appropriate statistical techniques were applied for analysis of the data. The major findings of which are summarized below :

Findings :

6.1 Socio-economic structure

The non-slum women (34.8) have been found older than the slum women (32.2) on mean score. More than 80 per cent women respondents belonged to nuclear family in slum area and more than 50 per cent respondents from nuclear families in non-slum area. It seems that the development of nuclear system is a tendency of the modern age as reflected in the survey study. The majority of women respondents in slum areas seems to be OBC and SC and in non-slum. The majority of respondents in slum area were illiterate and educated up to primary level but in non-slum area seems to be graduate and above. Maximum per cent of women respondents from slum area was found Rs. 1000 – Rs. 2000 income group while in non-slum area maximum per cent of women respondents are earning Rs.3000 & above. The slum women are economically poor than non-slums.

6.2 Impact of mass media in nutrition knowledge, attitude and practices

The mass media has a deep rooted impact on the development of knowledge about nutrition on both the non-slum and slum women. The study finds that non-slum and slum women have been found to develop favourable and positive attitude towards nutrition equally.

6.3 Exposure level of mass media on sample subjects

The intensity of exposure or amount of exposure of mass media to the subject sample has been significantly found associated with the development of knowledge about nutrition, attitude in favour of nutrition and the practices of nutrition. A good deal of residual is there, which is associated with no exposure for which the accounts have not been highlighted in this study. This residual, which is significant, may be attributed to personal interaction within the individuals and also interpersonal conversation about nutrition.

6.4 Owning radio and television sets and its impact on the development of knowledge, attitude and practices

The ownership of radio and television sets for non-slum women is more than the slum women. The ownership of the mass media has an impact on the development of knowledge for nutrition, development of positive attitude for nutrition and practices of nutrition in case of non-slum and slum women both.

These findings can be generalized that the ownership of the media provides better facilities for exposure and provides better results against non-possession of the mass media.

Conclusion

The findings of the study are concluded as follows :

1. It is envisaged that mass media produces a great influence on knowledge, attitude and practices of urban and slum women both.
2. The higher amount of exposure of mass media will concur in higher development of knowledge for nutrition, positive attitude towards nutrition and higher practices of nutrients.
3. The exposure has evidently the positive results but no exposure does not mean no development of knowledge, attitude and practices. There may be agencies other than mass media, not considered in this study, which enhanced the three attributes.
4. The ownership of mass media as an independent variable has been found to account for positive development of attributes knowledge, attitudes and practices.

Suggestions and Policy Implications

1. The study is very useful for those doing nutrition education work in slum areas like NGOs, ICDS, Rural Development Department, Panchayati Raj Department and Play Group Schools. These institutions are required to show nutrition educational CDs to the public elaborating deficiency of element resulting in cause of different diseases and how these can be managed.

2. In the field of print media, public should be motivated to read different types of prepared pamphlets and booklets through news papers and also to provide prepared packages time-to-time in schools.
 3. Students of the home science undergraduate and postgraduate colleges of UGCs and SAUs should make linkage for interacting face-to-face with women of slum and non-slum areas.
 4. Organize Gosthi programmes in villages and invite the district officers who are working in the related field. Also discuss with the women directly in their presence.
 5. Government mid-day meal programmes run in different schools must be compared with other schools.
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Appendices

APPENDICES

प्रश्नावली अनुसूची

1. सामान्य जानकारी

उत्तरदात्री का नाम :

आयु :

पता :

शिक्षा :

व्यवसाय :

धर्म या जाति :

परिवार का प्रकार : एकाकी परिवार / संयुक्त परिवार

परिवार में सदस्यों की संख्या:

उत्तरदात्री की मासिक आय :

परिवार की कुल मासिक आय:

उत्तरदात्री की जानकारी

नाम	आयु	शिक्षा	व्यवसाय	आय मासिक	वैवाहिक स्तर	बच्चों की संख्या

2. विशिष्ट जानकारी

- (1) क्या आपके पास टेलीविजन और रेडियो है ? हां/नहीं
- (2) यदि हां तो क्या आप देखती एवं सुनती है ? टेलीविजन/रेडियो
- रोज सप्ताह में दो बार सप्ताह में एक बार कभी नहीं
- () () () ()

(3) यदि हां तो क्या आप निम्न विज्ञापनों को देखतीं एवं सुनती है
 विज्ञापन टेलीविजन रेडियो
 हां/नहीं हां/नहीं

1. आयोडीनकृत नमक
2. हरी सब्जियों का भोजन में प्रयोग
3. जल की स्वच्छता
4. टीकाकरण
5. भोजन में विटामिन एवं खनिज लवण का महत्व
6. गर्भवती स्त्री का आहार
7. बाल जीवन घुट्टी
8. मैगी टोमैटो सॉस
9. पार्ले जी बिस्कुट
10. सन्तुलित आहार
11. हौरलिक्स
12. ओ.आर.एस. घोल
13. सेरेलैक शिशु आहार
14. रतौंधी से बचाव
15. ग्लूकॉन डी

(3) पोषण सम्बन्धी ज्ञान

(1) दैनिक आहार में

1. अनाज में दालों का प्रयोग करना चाहिए ।
2. अनाज, दालें, हरी सब्जियों एवं दुग्ध से बने पदार्थों का प्रयोग करना चाहिए ।
3. केवल फल, सब्जियों एवं अनाजों का प्रयोग करना चाहिए ।
4. अण्डे, मास, मछली एवं अनाजों का प्रयोग करना चाहिए ।

(2) हरी पत्तेदार सब्जियाँ अत्यधिक लाभकारी होती हैं

1. रक्तक्षीणता (खून की कमी) को दूर करने में ।
2. विटामिन सी की कमी को दूर करने में ।
3. भोजन का पाचन सही बनाये रखने में ।
4. उपरोक्त में से कोई नहीं ।

(3) पोष्टिकता

1. दही में अधिक है एवं दूध में कम है ।
2. दूध , दही दोनों में समान है।
3. दही में कम है, दूध में अधिक है।
4. दूध, दही दोनों में नहीं है।

(4) अंकुरित भोज्य पदार्थों का

1. शरीर के लिए उपयोगी एवं पोषण मूल्य अधिक होता है
2. पोषण मूल्य कम होता है।
3. किसी भी प्रकार का कोई परिवर्तन नहीं होता है।
4. उपर्युक्त में से कोई नहीं।

(5) विटामिन सी का अच्छा स्रोत है ।

1. मॉस
2. रोटी एवं अनाज
3. दूध एवं दूध से बने पदार्थ
4. खट्टे फल

(6) पीने के पानी को सदैव

1. साफ एवं सुथरी जगह से लेना चाहिए।
2. तालाब से लेना चाहिए
3. जहाँ पशु एवं मनुष्य सभी लोग नहाते हों।
4. कुँए से लेना चाहिए।

(7) आयोडीनीकृत नमक का प्रयोग करने से —

1. घेंघा रोग होने की सम्भावना नहीं रहती है।
2. सूखा रोग हो जाता है।
3. खून की कमी नहीं होती है।
4. उपरोक्त में से कोई नहीं।

(8) रतौंधी या रात को धंधलापन का मुख्य कारण

1. आहार में विटामिन ए की कमी।
2. प्रोटीन की कमी।
3. विटामिन डी की कमी।
4. उपरोक्त में से कोई नहीं।

(9) गर्भावस्था में स्त्री को —

1. सामान्य अवस्था में अतिरिक्त प्रोटीन, खनिज लवण एवं विटामिन युक्त आहार की आवश्यकता होती है।
2. केवल हरी सब्जियों एवं दूध का प्रयोग करना चाहिए।
3. सामान्य आहार लेना चाहिए।
4. उपरोक्त में से कोई नहीं।

(10) शिशु के लिए उत्तम आहार हैं :

1. माता का दूध ।
2. बोतल का दूध ।
3. डिब्बे का दूध।
4. अन्य ।

(4) पोषण सम्बन्धी अभ्यास

	सदैव	कभी-कभी	कभी नहीं
<ol style="list-style-type: none"> 1. भोजन को साफ हाथों, वर्तनों द्वारा प्रयोग करती है। 2. पीने के पानी को ढक कर रखती है। 3. सब्जियों को काटने से पूर्व अच्छी तरह धोती हैं। 4. जल में गन्दगी या अशुद्धता का पता लगने पर उसे छानकर एवं उबालकर प्रयोग करती है। 5. प्रत्येक सदस्य के लिए उसकी आयु, लिंग एवं कार्य के अनुरूप भोजन की व्यवस्था करती है। 6. गर्भावस्था में तथा नवजात शिशु को सम्पूर्ण टीके लगवाती हैं। 7. दैनिक भोजन में हरी पत्तेदार सब्जियों, सलाद, मौसमी फल अनाज एवं दालों का प्रयोग करती हैं। 8. गर्भावस्था में अथवा दुग्धावस्था में आहार में परिवर्तन करती हैं। 9. नवजात शिशु को स्तनपान कराती है। 10. रोगावस्था में मरीज एवं उसके आसपास की वस्तुओं की विशेष स्वच्छता रखती हैं। 11. विज्ञापनों द्वारा दिखाई जाने वाली जानकारी एवं विभिन्न भोज्य सामग्री जैसे अचार, जैम, जैली, चाय, आयोडीनीकृत नमक इत्यादि का प्रयोग करती हैं। 12. मलेरिया अथवा संक्रामक रोगों की स्थिति में घर में अथवा घर के आस-पास कीटनाशक दवाओं का प्रयोग एवं सफाई करती हैं। 13. डायरिया एवं हैजा की अवस्था में बीमार व्यक्ति को ओ0आर0एस0 का घोल एवं ग्लूकोजयुक्त जल का प्रयोग करती हैं। 14. बढ़ते हुए शिशु के लिए प्रायः प्रयुक्त करती हैं। <ol style="list-style-type: none"> (1) व्यवसायिक/बाजारु उत्पाद जैसे सेरेलेक । (2) घरेलू उत्पाद जैसे दाल का पानी मसला हुआ केला, चावल का पानी इत्यादि। 			

पोषण के प्रति अभिमति	पूर्ण सहमत	सहमत	अनिश्चित	असहमत	पूर्णतः असहमत
1. भोजन में विभिन्न खाद्य पदार्थों जैसे हरी सब्जियों, दालों, अनाज दूध एवं अन्य सब्जियों की समुचित मात्रा का प्रयोग करना चाहिए।					
2. भोजन में स्वाद की अपेक्षा उसमें निहित पौष्टिक तत्वों पर अधिक ध्यान देना चाहिए।					
3. भोजन में सस्ते एवं मँहगें खाद्य पदार्थों का प्रयोग अपने बजट के अनुसार करना चाहिए।					
4. बढ़ते हुए बच्चों को प्रोटीन युक्त आहार विशेषरूप से देना चाहिए।					
5. रक्त की कमी, रतौंधी, अतिसार आदि रोग उचित आहार द्वारा ठीक किये जा सकते हैं।					
6. खाद्य पदार्थों को खरीदते समय एक गृहणी को अपने परिवार के सदस्यों की पसंदगी को ध्यान में रखना चाहिए।					
7. प्रत्येक गृहणी को अपने परिवार के स्वास्थ्य के प्रति जागरूक रहना चाहिए।					
8. डिब्बा बंद सामग्रियों के संदर्भ में उनपर अथवा संलग्नपत्र में लिखे अनुदेशों का आवश्यक रूप से अध्ययन कर लेना चाहिए।					
9. गर्भवती स्त्री एवं नवजात शिशु को सभी टीके लगवाने चाहिए।					
10. परिवार के सदस्यों को स्वस्थ बनाये रखने के परिपेक्ष्य में विभिन्न स्रोतों से भोज्य पदार्थों के पौष्टिक गुणों एवं आहार सम्बन्धी सूचना प्राप्त करते रहना चाहिए।					

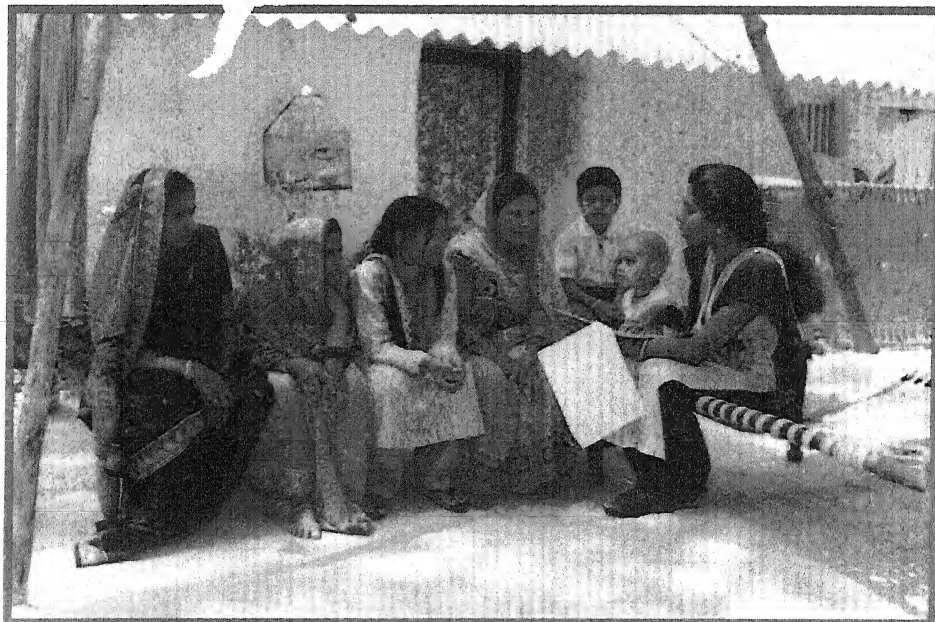


Photo 1: Investigator interviewing the rural women



Photo 2: Investigator emphasizing the importance of print media

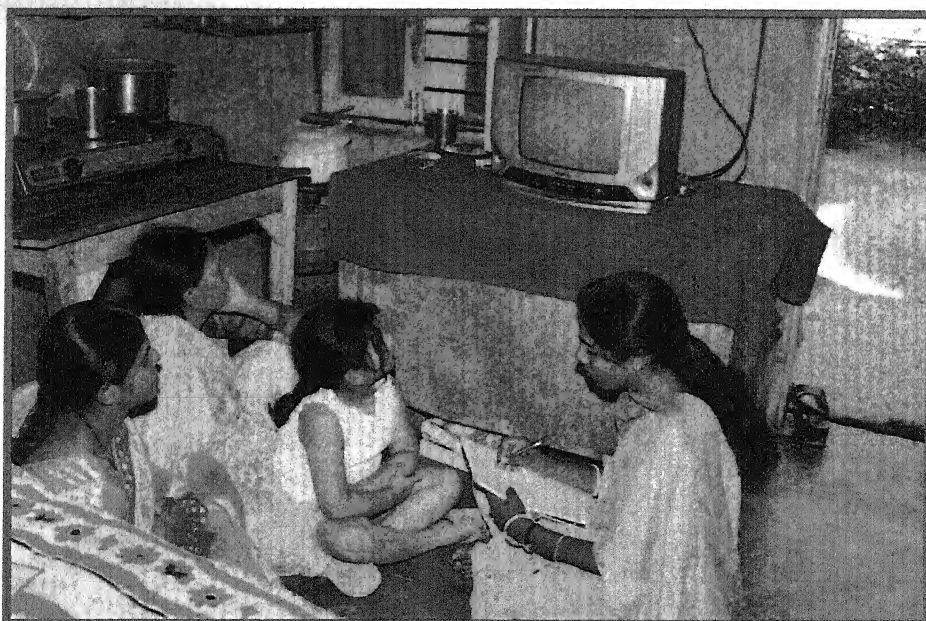


Photo 3: Investigator emphasizing the importance of Visual media